



This document is scheduled to be published in the Federal Register on 04/25/2016 and available online at <http://federalregister.gov/a/2016-08375>, and on [FDsys.gov](http://FDsys.gov)

**6712-01**

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR Parts 51, 54, 65, and 69**

**[WC Docket Nos. 10-90, 14-58; CC Docket No. 01-92; FCC 16-33]**

**Connect America Fund, ETC Annual Reports and Certifications, Developing a Unified Intercarrier Compensation Regime**

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** In this document, the Federal Communications Commission (Commission) adopts significant reforms to place the universal service program on solid footing for the next decade to “preserve and advance” voice and broadband service in areas served by rate-of-return carriers.

**DATES:** Effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, except for the amendments to §§ 51.917(f)(4), 54.303(b), 54.311(a), 54.313(a)(10), (e)(1), (e)(2) and (f)(1), 54.316(a)(b), 54.319(e), 54.903(a), 69.132, 69.311, 69.4(k), and 69.416 which contain new or modified information collection requirements that will not be effective until approved by the Office of Management and Budget. The Federal Communications Commission will publish a document in the Federal Register announcing the effective date for those sections.

**FOR FURTHER INFORMATION CONTACT:** Alexander Minard, Wireline Competition Bureau, (202) 418-0428 or TTY: (202) 418-0484.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission’s Report and Order, Order and Order on Reconsideration in WC Docket Nos. 10-90, 14-58; CC Docket No. 01-92; FCC 16-33, adopted on March 23, 2016 and released on March 30, 2016. The full text of this document is available for public inspection during regular business hours in the FCC Reference Center, Room CY-A257, 445 12th Street, SW, Washington, DC 20554. Or at the following Internet address: [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2016/db0330/FCC-16-33A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0330/FCC-16-33A1.pdf). The Further

Notice of Proposed Rulemaking (FNPRM) that was adopted concurrently with the Report and Order, Order and Order on Reconsideration are published elsewhere in this issue of the Federal Register.

## **I. INTRODUCTION**

1. With this Report and Order, Order and Order on Reconsideration, and concurrently adopted Further Notice of Proposed Rulemaking (FNPRM), the Commission adopts significant reforms to place the universal service program on solid footing for the next decade to “preserve and advance” voice and broadband service in areas served by rate-of-return carriers. In 2011, the Commission unanimously adopted transformational reforms to modernize universal service for the 21st century, creating programs to support explicitly broadband-capable networks. In this Report and Order, Order, Order on Reconsideration, and concurrently adopted FNPRM, the Commission takes necessary and crucial steps to reform our rate-of-return universal service mechanisms to fulfill our statutory mandate of ensuring that all consumers “have access to . . . advanced telecommunications and information services.” In particular, after extensive coordination and engagement with carriers and their associations, the Commission modernizes the rate-of-return program to support the types of broadband offerings that consumers increasingly demand, efficiently target support to areas that need it the most, and establish concrete deployment obligations to ensure demonstrable progress in connecting unserved consumers. This will provide the certainty and stability that carriers seek in order to invest for the future in the years to come. The Commission welcomes ongoing input and partnership as the Commission moves forward to implementing these reforms.

2. Rate-of-return carriers play a vital role in the high-cost universal service program. Many of them have made great strides in deploying 21st century networks in their service territories, in spite of the technological and marketplace challenges to serving some of the most rural and remote areas of the country. At the same time, millions of rural Americans remain unserved. In 2011, the Commission unanimously concluded that extending broadband service to those communities that lacked any service was one of core objectives of reform. At that time, it identified a rural-rural divide, observing that “some parts of rural America are connected to state-of-the art broadband, while other parts of rural America have

no broadband access.” The Commission focuses now on the rural divide that exists within areas served by rate-of-return carriers. According to December 2014 Form 477 data, an estimated 20 percent of the housing units in areas served by rate-of-return carriers lack access to 10 Mbps downstream/1 Mbps upstream (10/1 Mbps) terrestrial fixed broadband service. It is time to close the gap, and take action to bring service to the consumers served by rate-of-return carriers that lack access to broadband. The Commission needs to modernize comprehensively the rate-of-return universal service program in order to benefit rural consumers throughout the country.

3. For years, the Commission has worked with active engagement from a wide range of interested stakeholders to develop new rules to support broadband-capable networks. One shortcoming of the current high-cost rules identified by rate-of-return carriers is that support is not provided if consumers choose to drop voice service, often referred to as “stand-alone broadband” or “broadband-only” lines. In the April 2014 Connect America FNPRM, 79 FR 39196, July 9, 2014, the Commission unanimously articulated four general principles for reform to address this problem, indicating that new rules should provide support within the established budget for areas served by rate-of-return carriers; distribute support equitably and efficiently, so that all rate-of-return carriers have the opportunity to extend broadband service where it is cost-effective to do so; support broadband-capable networks in a manner that is forward looking; and ensure no double-recovery of costs. The package of reforms outlined below solve the stand-alone broadband issue and update the rate-of-return program consistent with those principles. The Commission also takes important steps to act on the recommendation of the Governmental Accountability Office to ensure greater accountability and transparency in the high-cost program.

4. The Report and Order establishes a new forward-looking, efficient mechanism for the distribution of support in rate-of-return areas. Specifically, the Commission adopts a voluntary path under which rate-of-return carriers may elect model-based support for a term of 10 years in exchange for meeting defined build-out obligations. The Commission emphasizes the voluntary nature of this mechanism; no carrier will be required to take model-based support. This action will advance the Commission’s longstanding objective of adopting fiscally responsible, accountable and incentive-based

policies to replace outdated rules and programs. The cost model, which has proven successful in distributing support for price cap carriers, has been adjusted in multiple ways over more than a year to take into account the circumstances of rate-of-return carriers. The Commission makes all necessary decisions to finalize the Alternative Connect America Cost Model (A-CAM) and direct the Wireline Competition Bureau (Bureau) to publish support amounts for this new component of the Connect America Fund (CAF ACAM) and associated deployment obligations for potential consideration by rate-of-return carriers. The Commission will make available up to an additional \$150 million annually from existing high-cost reserves to facilitate this voluntary path to the model over the next decade. This approach will spur additional broadband deployment in unserved areas, while preserving additional funding in the high-cost account for other high-cost reforms.

5. The Commission also makes technical corrections to modernize our existing interstate common line support (ICLS) rules to provide support in situations where the customer no longer subscribes to traditional regulated local exchange voice service, i.e. stand-alone broadband. Going forward, this reformed mechanism will be known as Connect America Fund Broadband Loop Support (CAF BLS). This simple, forward-looking change to the existing mechanism will provide support for broadband-capable loops in an equitable and stable manner, regardless of whether the customer chooses to purchase traditional voice service, a bundle of voice and broadband, or only broadband. This will create incentives for carriers to deploy modern networks and encourage adoption of broadband. The Commission expects this approach will provide carriers, including those that no longer receive high cost loop support (HCLS), with appropriate support going forward to invest in broadband networks, while not disrupting past investment decisions.

6. One of the core principles of reform since 2011 has been to ensure that support is provided in the most efficient manner possible, recognizing that ultimately American consumers and businesses pay for the universal service fund (USF). The Commission continues to move forward with our efforts to ensure that companies do not receive more support than is necessary and that rate of return carriers have sufficient incentive to be prudent and efficient in their expenditures, and in particular

operating expenses. Therefore, the Commission adopts a method to limit operating costs eligible for support under rate-of-return mechanisms, based on a proposal submitted by the carriers. The Commission also adopts measures that will limit the extent to which USF support is used to support capital investment by those rate-of-return carriers that are above the national average in broadband deployment in order to help target support to those areas with less broadband deployment. Lastly, in order to ensure disbursed high-cost support stays within the established budget for rate-of-return carriers, building on proposals in the record, the Commission adopts a self-effectuating mechanism to control total support distributed pursuant to the HCLS and CAF-BLS mechanisms. The Commission recognizes that many carriers are eager to upgrade their existing broadband networks to provide service that exceeds the minimum standards that the Commission has established for recipients of high-cost support. But first, the Commission must ensure that our baseline service is truly universal. Each dollar spent on upgrading networks that already are capable of delivering 10/1 Mbps service is a dollar not available to extend service to those consumers that lack such service. Taken together, the Commission anticipates that these controls and limitations will encourage efficient spending by rate-of-return carriers, thereby enabling universal service support to be more effectively targeted to support investment in broadband-capable facilities in areas that remain unserved.

7. One of the core tenets of reform for the Commission in 2011 was to “require accountability from companies receiving support to ensure that public investments are used wisely to deliver intended results.” The Commission stated its expectation that rate-of-return carriers would deploy scalable broadband in their communities, but it declined at that time to adopt specific build-out milestones for rate-of-return carriers. Instead, it concluded that it would allow carriers to extend service upon reasonable request. Since that time, rate-of-return carriers have continued to extend service, with a 45 percent increase in availability of 10/1 Mbps service between 2012 and 2014. To build on that progress, the Commission now adopts specific broadband deployment obligations for all rate-of-return carriers, and not just for those that elect the voluntary path to the model. The Commission adopts deployment obligations for all rate-of-return carriers that can be measured and monitored, while tailoring those

obligations to the unique circumstances of individual carriers. Those obligations will be individually sized for each carrier not electing model support, based on the extent to which it has already deployed broadband and its forecasted CAF BLS, taking into account the relative amount of depreciated plant and the density characteristics of individual carriers.

8. Another core tenet of reform adopted by the Commission in 2011, and unanimously reaffirmed in 2014, was to target support to areas that the market will not serve absent subsidy. To direct universal service support to those areas where it is most needed, the Commission adopts a rule prohibiting rate-of-return carriers from receiving CAF-BLS support in those census blocks that are served by a qualifying unsubsidized competitor. The Commission adopts a robust challenge process to determine which areas are in fact served by a qualifying unsubsidized competitor. The Commission does not expect the challenge process to be completed before the end of 2016, with support adjustments occurring no earlier than 2017. Carriers may elect one of several options for disaggregating support for those areas found to be competitive. Any support reductions resulting from implementation of this rule will be more effectively targeted to support existing and new broadband infrastructure in areas lacking a competitor.

9. Finally, the Commission takes action to modify our existing reporting requirements in light of lessons learned from their implementation. The Commission revises eligible telecommunications carriers' (ETC) annual reporting requirements to better align those requirements with our statutory and regulatory objectives. The Commission concludes that the public interest will be served by eliminating the requirement to file a narrative update to the five-year plan. Instead, the Commission adopts narrowly tailored reporting requirements regarding the location of new deployment offering service at various speeds, which will better enable the Commission to determine on an annual basis how high-cost support is being used to "improve broadband availability, service quality, and capacity at the smallest geographic area possible."

10. In the Order and Order on Reconsideration, as part of our modernization of the rules governing rate-of-return carriers, the Commission represcribes the currently authorized rate of return from 11.25 percent to 9.75 percent. The rate of return is a key input in a rate-of-return incumbent local

exchange carrier (LEC) revenue requirement calculation, which is the basis for both its common line and special access rates, and high-cost support as applicable. The current 11.25 percent rate of return is no longer consistent with the Act and today's financial conditions. Relying primarily on the methodology and data contained in a Bureau Staff Report – with some minor corrections and adjustments – the Commission identifies a more robust zone of reasonableness and adopts a new rate of return at the upper end of this range. This reform will be phased in over six years. This change not only will improve the efficiency of the high-cost program, but also will lower prices for rate-of-return customers in rural areas.

11. The actions the Commission takes today, combined with the rate-of-return reforms undertaken in the past two years, will allow us to continue to advance the goal of ensuring deployment of advanced telecommunications and information services networks throughout “all regions of the nation.” Importantly, they build on proposals from and collaboration with the carriers and their associations. Through the coordinated reforms the Commission takes today, they will provide rate-of-return carriers with equitable and sustainable support for investment in the deployment and operation of 21st century broadband networks throughout the country, providing stability for the future. Achieving universal access to broadband will not occur overnight, but today marks another step on the path toward that goal.

## **II. REPORT AND ORDER**

### **A. Voluntary Path to the Model**

#### **1. Discussion**

12. In this section, the Commission adopts a voluntary path for rate-of-return carriers to elect to receive model-based support in exchange for deploying broadband-capable networks to a pre-determined number of eligible locations. By creating a voluntary pathway to model-based support, the Commission will spur new broadband deployment in rural areas, which will help close the digital divide among rate-of-return carriers. As noted above, there is a wide disparity among rate-of-return study areas regarding the extent of coverage meeting the Commission's minimum standard of 10/1 Mbps service: based on December 2014 FCC Form 477 data, an estimated 20 percent of housing units in census blocks served by rate-of-return carriers lack access to 10/1 Mbps terrestrial fixed broadband service, while other

rate-of-return carriers have deployed 10/1 Mbps to nearly all of their study area. The option of receiving model-based support will provide the opportunity for carriers that have made less progress in their broadband deployment than other rate-of-return carriers to “catch up.” By creating defined performance and deployment obligations for specific and predictable support amounts, the Commission is completing the framework envisioned by the Commission in the 2011 USF/ICC Transformation Order, 76 FR 73830, November 29, 2011. The Commission also is taking additional steps to fulfill the Commission’s longstanding objective of providing support based on forward-looking efficient costs. And finally, the model path may well be a viable option for high-cost companies that no longer receive HCLS due to the past operation of the indexed cap on HCLS, often referred to as the “cliff effect.” The Commission took steps to address this problem in December 2014 by modifying the methodology used to adjust HCLS to fit within the existing cap, but that did not restore HCLS to those companies that previously had fallen off the cliff.

13. As discussed more fully below, the election of model-based support places those carriers in a different regulatory paradigm. They no longer will be subject to rate-of-return regulation for common line offerings, and they no longer will participate in the National Exchange Carrier Association’s (NECA’s) common line pool. Effectively, the carriers that choose to take the voluntary path to the model are electing incentive regulation for common line offerings.

14. Term of Support. The Commission adopts a 10-year term for rate-of-return carriers electing to receive model-based support. Carriers electing this option will have the certainty of receiving specific and predictable monthly support amounts over the 10 years. Predictable support will enhance the ability of these carriers to deploy broadband throughout the term. In year eight, the Commission expects they will conduct a rulemaking to determine how support will be determined after the end of the 10-year period. The Commission expects that prior to the end of the 10-year term, the Commission will have adjusted its minimum broadband performance standards for all ETCs, and other changes may well be necessary then to reflect marketplace realities at that time.

15. Broadband Speed Obligations. In December 2014, the Commission adopted a minimum

speed standard of 10/1 Mbps for price-cap and rate-of-return carriers receiving high-cost support. As a result, price cap carriers accepting model-based support are required to offer at least 10/1 Mbps broadband service to the requisite number of high-cost locations by the end of a six-year support term. And rate-of-return carriers were required to offer at least 10/1 Mbps broadband service upon reasonable request. At that time, the Commission also decided that 10/1 Mbps should not be our end goal for the 10-year term for providers awarded support through the Connect America Phase II bidding process.

16. Similarly, here, the Commission recognizes that their minimum requirements for rate-of-return carriers will likely evolve over the next decade. NTCA argues that a universal service program premised upon achieving speeds of 10/1 Mbps risks locking rural America into lower service levels. The Commission agrees that our policies should take into account evolving standards in the future. At the same time, the Commission recognizes that it is difficult to plan network deployment not knowing the performance obligations that might apply by the end of the 10-year term. The Commission finds that establishing speed and other performance requirements now for carriers electing model-based support is preferable to doing so at some point mid-way through the 10-year term, as it will provide more certainty for carriers electing this voluntary path. Rate-of-return carriers that comply with the performance requirements the Commission establishes today for the duration of the 10-year term will be deemed in compliance even if the Commission subsequently establishes different standards that are generally applicable to the high-cost support mechanisms before the end of the 10-year term.

17. The Commission concludes that rate-of-return carriers electing model support will be required to maintain voice and existing broadband service and to offer at least 10/1 Mbps to all locations “fully funded” by the model, and at least 25/3 Mbps to a certain percentage of those locations, by the end of the support term. The Commission adopts with minor modifications ITTA and USTelecom’s proposal to require carriers with a state-level density of more than ten locations per square mile to offer at least 25/3 Mbps to at least 75 percent of the fully funded locations in the state by the end of the 10-year term. For administrative convenience, the Commission will determine these density thresholds based on housing units, rather than locations in the model, because other density measures adopted in this Order

will rely on U.S. Census data for housing units. The Commission concludes that carriers with a state-level density of ten or fewer, but more than five, housing units per square mile will be required to offer at least 25/3 Mbps to at least 50 percent of the fully funded locations in the state by the end of the 10-year term, and carriers with five or fewer housing units per square mile will be required to offer at least 25/3 Mbps to at least 25 percent of the fully funded locations, as suggested by WTA and other commenters. The density of each carrier's study area or study areas in a state will be determined using the final 2015 study area boundary data collection information submitted by carriers, and the number of locations will be determined using U.S. Census data. The Commission directs the Bureau to publish a list showing the state-level density for each carrier prior to issuing the public notice announcing the final version of the adopted model, so carriers will know in advance of the timeframe for electing model-based support which deployment obligations will be applicable.

18. In addition, the Commission establishes defined requirements for making progress towards extending broadband to capped locations within their service areas. Specifically, carriers electing model support will be required to offer at least 4/1 Mbps to a defined number of locations that are not fully funded (i.e. with a calculated average cost above the "funding cap"). The Commission adopts a modified version of ITTA's proposal, again using housing units to determine density. The Commission will require carriers with a state-level density of more than 10 housing units per square mile to offer at least 4/1 Mbps to 50 percent of all capped locations in the state by the end of the 10-year term. Carriers with a state-level density of 10 or fewer housing units per square mile will be required to offer at least 4/1 Mbps to 25 percent of all capped locations in the state by the end of the 10-year term. The remaining capped locations will be subject to the reasonable request standard, and the Commission will monitor progress in connecting these locations as well. The Commission encourages carriers electing the voluntary path to the model to identify any census blocks where they expect not to extend broadband, so that such census blocks may be included in an upcoming auction where parties, including the current provider, may bid for support. The Bureau will announce a date by public notice, no sooner than 60 days after elections are finalized, by which carriers electing model-support may identify any such census

blocks. Our goal is to ensure that all consumers have an opportunity to receive service within a reasonable timeframe. If carriers know that support provided through the voluntary path to the model will be insufficient to reach certain parts of their territories within 10 years, identifying these territories now, rather than 10 years from now, will enable the Commission to find another, more timely path to bring broadband to consumers in these areas. Carriers that provide the Commission notice within the requisite time would not be required to provide service upon reasonable request in the identified areas.

19. Usage and Latency. In the April 2014 Connect America FNPRM, the Commission proposed to apply the same usage allowances and latency standards that the Bureau previously had adopted for price cap carriers accepting model-based support to rate-of-return carriers that are subject to broadband performance obligations. The Commission now adopts a usage threshold for rate-of-return carriers electing model support that should ensure that consumers in these areas have access to an evolving level of service over the 10-year term: the Commission requires them to offer a minimum usage allowance of 150 GB per month, or a usage allowance that reflects the average usage of a majority of consumers, using Measuring Broadband America data or a similar data source, whichever is higher. The first prong of the usage requirement—the 150 GB usage allowance—is similar to the approach adopted by the Bureau for price cap carriers to set an evolving level of service over the term of support: the Commission requires them to offer a usage allowance that meets or exceeds the usage level of 80 percent of cable or fiber-based fixed broadband subscribers, whichever is higher, according to the most current publicly available Measuring Broadband America usage data. According to the Commission’s 2015 Measuring Broadband America data, 80 percent of cable broadband subscribers used 156 GB or less per month. For simplicity, the Commission adopts a monthly usage allowance of 150 GBs for rate-of-return carriers electing to receive CAF-ACAM support. The second prong of the usage requirement—to provide a usage allowance that will allow consumers to use their connections in a way similar to usage of a majority of consumers nationwide—ensures that consumers served by rate-of-return carriers will be not be offered service that is significantly different than what is available in urban areas over the full 10-year term. The Commission expects that carriers accepting model-based support will have economic

incentives irrespective of these mandates to provide consumers with an evolving array of service offerings, and adopt this second prong as a regulatory backstop to ensure that this happens.

20. In addition, the Commission adopts our proposal to require rate-of-return carriers accepting model-based support to certify that 95 percent or more of all peak period measurements of network round-trip latency are at or below 100 milliseconds. No party objected to adopting this standard for public interest obligations for rate-of-return carriers. This latency standard will apply to all locations that are fully funded. As discussed below, the Commission recognizes there may be need for relaxed standards in areas that are not fully funded, where carriers may use alternative technologies to meet their public interest obligations.

21. Deployment Obligations. The Commission require rate-of-return carriers accepting the offer of model-based support to offer at least 10/1 Mbps broadband service to the number of locations identified by the model where the average cost is above the funding benchmark and below the funding per location cap, and at least 25/3 Mbps to a subset of those locations. These are the locations that are “fully funded” with model-based support. In contrast to the approach taken in price cap areas, where the Commission did not provide support to locations above an extremely high-cost threshold, in rate-of-return areas the Commission will provide support to all census blocks with average costs above the funding benchmark. However, each location within census blocks where the average cost exceeds the funding cap will receive the same amount of support. This funding for locations above the funding cap should be sufficient to preserve existing service and allow carriers to extend broadband service to a defined number of the capped locations, and to the remaining locations upon reasonable request, using alternative technologies where appropriate. If a carrier identifies census blocks that it will not be able to serve by the date specified by public notice, as discussed above, its support will be reduced to reflect the fewer number of locations, and it will not be subject to the reasonable request standard for those locations if another provider wins those areas in an auction.

22. The Commission declines to adopt an approach that would base a company’s build-out obligations solely on the extent to which its model-based support exceeds its legacy support. The

Commission agrees with proponents of such an approach that the locations to which a company will be required to deploy broadband should be based on the A-CAM modeled cost characteristics of each company, but the Commission finds that our approach is preferable and more consistent with the overall framework of providing model-based support. Like CAM, A-CAM estimates “the full average monthly cost of operating and maintaining an efficient, modern network,” and includes both capital and operating costs. Although actual costs may differ from forward-looking economic costs at any particular point in time, allowing monthly recovery of the model’s levelized cost means, on average, all carriers will earn an amount that would allow them to maintain the specified level of service going forward over the longer term.

23. The Commission is not persuaded by the argument that they should tie broadband deployment obligations only to the supplemental support in excess of legacy support and determine the extent of new broadband deployment obligations based on modeled capital costs. Our methodology is based on modeled capital and operating costs for each census block and provides the entire support amount calculated for areas above the funding benchmark and below the per-location funding cap; that is, these locations will be “fully funded” by the model under our method.

24. Interim Deployment Milestones. The Commission adopts evenly spaced annual interim milestones over the 10-year term for rate-of-return carriers electing model-based support, as proposed by ITTA, NTCA, USTelecom, and WTA with a minor modification. The Commission adopts enforceable milestones beginning in year four, whereas the enforceable milestones proposed by the rural associations would begin in year five. As shown in the chart below, the Commission requires carriers receiving model-based support to offer to at least 10/1 Mbps broadband service to 40 percent of the requisite number of high-cost locations in a state by the end of the fourth year, an additional 10 percent in subsequent years, with 100 percent by the end of the 10-year term. The Commission does not set interim milestones for the deployment of broadband speeds of 25/3 Mbps; the Commission requires carriers receiving model-based support to offer to at least 25/3 Mbps broadband service carriers to 25 percent or 75 percent of the requisite locations by the end of the 10-year term, depending upon the state-level density

discussed above.

<b>Deployment Milestones for Rate-of-Return Carriers Receiving Model-Based Support</b>	
Year 1 (2017)	**%
Year 2 (2018)	**%
Year 3 (2019)	**%
Year 4 (2020)	40%
Year 5 (2021)	50%
Year 6 (2022)	60%
Year 7 (2023)	70%
Year 8 (2024)	80%
Year 9 (2025)	90%
Year 10 (2026)	100%

25. The Commission also concludes that rate-of-return carriers receiving model-based support should have some flexibility in their deployment obligations to address unforeseeable challenges to meeting these obligations. When the Commission adopted flexibility in deployment obligations for price cap carriers accepting model-based support, they recognized that the “facts on the ground” when they are deploying facilities may necessitate some flexibility regarding the number of required locations. Because rate-of-return carriers electing model-based support may face similar circumstances, the Commission finds that providing the same flexibility and allowing deployment to less than 100 percent of the requisite locations is equally appropriate for these carriers as well. The Commission therefore will permit them to deploy to 95 percent of the required number of locations by the end of the 10-year term. To the degree an electing carrier deploys to less than 100 percent of the requisite locations, the remaining percentage of locations would be subject to the deployment obligations for the carrier’s capped locations. The Commission does not require rate-of-return carriers to refund support if they deploy to at least 95% of the required locations, but not 100%, because they will use that support to maintain service and deploy

new broadband to unserved customers under the standard for capped locations adopted above. And, as noted above, to the extent the electing carrier does not foresee being able to serve some fraction of the remaining five percent of locations in any way, not even with alternative technologies, the Commission encourages them to identify such census blocks for inclusion in an upcoming auction.

26. The Commission also notes that the customer location data utilized in the model reflect location data at a particular point in time. The precise number of locations in some funded census blocks is likely to change for a variety of reasons, which in some circumstances would make it impossible for a carrier to meet its deployment obligations. Carriers that discover there is a widely divergent number of locations in their funded census blocks as compared to the model should have the opportunity to seek an adjustment to modify the deployment obligations. Consistent with our action for Phase II in price cap territories, the Commission delegates authority to the Bureau to address these discrepancies by adjusting the number of funded locations downward and reducing associated funding levels.

27. The Commission is not persuaded that they should decline to impose intermediate deployment milestones for small rate-of-return carriers serving 10,000 or fewer locations in a state, as proposed by WTA. WTA argues that a 5,000 line carrier that is 60 percent built out and needs to extend broadband to 2,000 more locations cannot economically build out to 200 new locations each year, and that the most efficient way to proceed is to construct all 2,000 locations during one or two construction seasons. The deployment milestones the Commission adopts do not require evenly spaced new deployment each year, as WTA appears to assume. For instance, the carrier could fully complete its deployment obligation in years 5 and 6, if it found it more efficient to do the whole project over two construction seasons. The Commission would be concerned if such a hypothetical carrier were to wait until years 8 and 9 to begin extending broadband to its unserved customers; they would expect to see some progress toward deploying new broadband after receiving eight years of model-based support. Moreover, carriers that feel uncomfortable with intermediate deadlines may prefer to stay on legacy mechanisms.

28. A-CAM. The Commission makes the following decisions regarding the final version A-

CAM that will be used to calculate support for carriers that voluntarily elect to receive model-based support. The Commission adopts the model platform and current input values in version 2.1 for purposes of calculating the cost of serving census blocks in rate-of-return areas, with a modification regarding updates to the broadband coverage data. Consistent with the rate prescription decision below, the Commission adopts an input value of 9.75 percent for the cost of money in the model for rate-of-return carriers, which is higher than the input value used for price cap carriers.

29. The Commission also makes all necessary decisions to calculate support amounts for rate-of-return carriers electing to receive model-based support. The model will utilize a \$200 per-location funding cap to provide support for all locations above a funding benchmark of \$52.50, which is subject to reduction if necessary to meet demand for model-based support. In addition, the Commission will exclude from support calculations those census blocks where the incumbent or any affiliated entity is providing 10/1 Mbps or better broadband using either FTTP or cable technologies. The Commission concludes that they will update the broadband coverage for unsubsidized competitors in the model to reflect the recently released June 2015 FCC Form 477 data, which will be subject to a streamlined challenge process. The Commission directs the Bureau to take all necessary steps to release the adopted version of the model for purposes calculating support amounts for rate-of-return carriers electing to receive model support.

30. As noted above, over the past year, the Bureau has been continually working on refining the model so that it would be more suitable for use in rate-of-return areas. During this time, rate-of-return carriers and their associations have actively participated in this process, providing input on ways further to improve the model. For instance, the Bureau received and included certain data from nearly half of the approximately 1,100 study areas to better reflect their costs. As a result of this feedback and the resulting adjustments detailed below, the Commission believes that the final version of A-CAM will sufficiently estimate the costs of serving rate-of-return areas and that further adjustments are not necessary.

31. The first version of A-CAM, released in December 2014, was fundamentally the same as CAM 4.2 to provide a baseline for subsequent modifications. Although the cost model was originally

developed for use in price cap areas, it always has included a size adjustment factor—based on rate-of-return company data—to scale operating expenses for “small, x-small, and xx-small” companies, and has reflected cost differences based on density. Thus, even though the model estimates the forward-looking costs of an efficient provider, it takes into account the higher operating expenses of small rate-of-return carriers operating in rural areas.

32. The Commission recognized the importance of accurate study area boundaries in using a model to calculate support for rate-of-return carriers. Whereas CAM used a commercial data source, GeoResults, to determine study area boundaries for the price cap carriers, the Commission directed the Bureau to incorporate the results of the Bureau’s study area boundary data collection into A-CAM. From November 2014 to April 2015, the Bureau undertook a four-step process for adapting the study area boundary data for use in the model. The first step determined study area boundaries for purposes of the A-CAM by addressing overlaps that remained after the Bureau provided an opportunity to resolve overlaps and voids in the data originally submitted. The second step aligned the exchanges submitted by rate-of-return carriers (or state commissions on behalf of the incumbent) in the study area data collection with the study area boundaries to be used in the model and modified the exchanges to match the edges of the study area boundary where the submitted boundary of the exchanges differed from the modified study area boundary. The third step determined the potential locations to be used in the model for the placement of the central office (“Node0” in A-CAM) within each exchange. The final step ensured that each exchange was associated with a single Node0 location. In April 2015, the Bureau posted on the Commission’s website the A-CAM map based on the study area boundary and exchange data that had been certified by the carriers and submitted to the Bureau.

33. Proposed corrections to study area and service area boundaries and Node0 locations were submitted by parties to the proceeding over the next several months. Recognizing that it would take several months to evaluate and incorporate study area boundary and Node0 locations submitted by interested parties in A-CAM, the Bureau continued to work on updating the model in other ways. In addition, with subsequent versions of the model the Bureau released illustrative results so that interested

parties could better understand and evaluate how different assumptions used in calculating support impact the potential support calculated for a particular study area.

34. A-CAM contains two modules: a cost module that calculates costs for all areas of the country, and a support module, which calculates the support for each area based on those costs. The support module allows users to “filter” the cost data to focus on specific geographic areas, such as census blocks that are not served by an unsubsidized competitor. Support amounts depend on the funding benchmark that determines which areas are funded: areas with an average cost below the funding benchmark are not funded because it is assumed that end user revenues are sufficient to cover the cost of serving such areas. Support amounts also depend on the mechanism utilized to keep total support calculated under the model within a given budget.

35. In March 2015, the Bureau released A-CAM version 1.0.1, which incorporated changes to broadband coverage using a minimum speed standard of 10/1 Mbps to determine the presence of a cable or fixed wireless competitor. The Bureau also released illustrative results under seven scenarios illustrating how different assumptions used in calculating support impact the potential support calculated for a particular study area. Five of the seven scenarios used a funding benchmark of \$52.50, the same benchmark used to calculate support for price cap carriers. Two of these scenarios used an extremely high-cost threshold as the mechanism to keep total calculated support with the total budget for rate-of-return carriers. A third scenario utilized a different approach to keep total calculated support within the total budget for rate-of-return carriers: a per-location funding cap. Two scenarios used a \$60 funding benchmark, which was suggested by parties to the proceeding as a mechanism to keep total support within the budget. This approach presumed that areas with an average cost per location less than \$60 are competitively served by cable operators and therefore should be ineligible for support, which reduced support evenly across all locations in order to meet the budget. These two scenarios and two additional scenarios all exceeded the rate-of-return budget, however, but were published by the Bureau so that parties could consider alternative measures to maintain overall support within the budget, such as a dollar amount reduction in support per location, a percentage reduction in support per location, or a cap on

support per location.

36. In May 2015, the Bureau published a revised A-CAM study area boundary map that updated the data used to identify a small number of Node0 locations, which improved the default locations if carriers did not propose any corrections, and provided additional time for carriers to submit Node0 locations. In July 2015, the Bureau announced upcoming modifications to A-CAM, including a code change to enable the use of company-specific plant mix (aerial, buried, and conduit) input values, instead of the state-wide default values, and invited parties to submit plant mix values for individual study areas. The plant mix values (aerial, buried, and conduit) are broken out separately for urban, suburban, and rural areas, for feeder, distribution, and interoffice facilities. In response to parties filing study area specific plant mix values, the Bureau posted a table showing the classification of census block groups as rural, suburban, and urban used in A-CAM.

37. On August 31, 2015, the Bureau released A-CAM version 1.1, which updated the model to reflect FCC Form 477 broadband deployment data as of December 31, 2014. The prior version of A-CAM (v1.0.1) used SBI/NBM data as of June 30, 2013. FCC Form 477 data offers several advantages over the SBI/NBM data. The Form 477 data collection is mandatory, and Form 477 filers must certify to the accuracy of their data. The Bureau also released illustrative results produced using A-CAM v1.1 under three scenarios that illustrate how different per-location funding caps used in calculating support impact the potential support calculated for each rate-of-return study area in the country.

38. On October 8, 2015, the Bureau released A-CAM version 2.0, which incorporated the results of the Bureau's study area boundary data collection and further updated the model for use in rate-of-return areas. After months of review by the Bureau, A-CAM v2.0 incorporated updated exterior study area boundaries, interior service area boundaries, and/or Node0 locations for approximately 400 study areas. The network topology was updated to reflect these changes, and to address the fact that American Samoa and some coastal islands are served by a rate-of-return carriers. The middle mile network topology was updated to include an undersea route for American Samoa and submarine routes for service areas not connected by roads within the continental United States. To reflect the fact that rate-of-return

carriers may have higher middle mile costs, A-CAM v2.0 added two connections from each regional access tandem ring to an Internet access point to account for the cost of connecting to the public Internet.

39. Previous versions of A-CAM included five size categories for investments related to land and buildings associated with central offices, and the smallest size central office was for those with fewer than 1,000 lines. Because some service areas in A-CAM have fewer than 250 locations, the updated capital expenditures input table created a new size category for central offices serving fewer than 250 locations, with lower land and building investment for these very small areas than exchanges with 250 to 1,000 locations. A-CAM v2.0 also was modified to incorporate study-area specific plant mix values, but because the Bureau was still reviewing these carrier submissions at that time, they were not reflected in this version of the model.

40. The Bureau also released A-CAM version 2.0 results that illustrate how three different per-location funding caps impact potential support. Although illustrative results for previous versions of A-CAM showed support using a per-location funding cap, A-CAM users could only approximate the Bureau's estimates. In A-CAM v2.0 and subsequent versions of the model, support can be calculated and reported using either an extremely high-cost threshold or a per-location funding cap. Support in A-CAM v2.0 is calculated using the average cost at the census block level for each study area (i.e., costs are averaged at the census block level), meaning all locations in a census block within a carrier's study area are either funded or not funded. This version of the model calculates cost at the sub-block level only in cases where a census block crosses a study area boundary.

41. On December 17, 2015, the Bureau released A-CAM v2.1, which incorporated study area-specific plant mix values submitted by rate-of-return carriers, updated broadband coverage data to address issues raised by rate-of-return commenters regarding reported competitive coverage, and provided an alternative coverage option that excludes from support calculations census blocks served with either FTTP or cable, as requested by one industry association. The Bureau also released results that illustrate how the two different coverage assumptions used in calculating support impact the potential support calculated for a particular study area; both sets of results are calculated using a \$200 per-location

funding cap. On February 17, 2016, the Bureau released additional illustrative results utilizing input values reflecting a 9.75 percent cost of money. Raising the cost of money increased costs for all study areas.

42. As directed, the Bureau incorporated the study area data and made other appropriate adjustments to A-CAM over the past year. The Commission finds that these modifications are sufficient for purposes of calculating support amounts for rate-of-return carriers electing to receive model support. A forward-looking cost model is designed to capture the costs of an efficient provider and does not generally use company-specific inputs values. As noted above, however, the A-CAM model takes into account the higher operating expenses of small, rate-of-return carriers operating in rural areas with a company size adjustment factor for operating expenses and cost differences based on density. The most significant modification is the incorporation of the study area boundary data. Although the commercial data set was an appropriate source for price cap carriers, the Commission recognizes that they serve significantly larger study areas than any of the more than 1,100 rate-of-return study areas. Because rate-of-return carriers serve smaller areas, it also was appropriate to provide for company-specific plant mix values if carriers found that the state-specific default values did not reflect their outside plant. The Commission notes that the average calculated A-CAM loop cost is greater than the largest embedded loop cost reported to NECA over the last fifteen years for the more than 500 study areas that submitted plant mix values.

43. As discussed in detail below, as part of our modernization of the framework for rate-of-return carriers for both high-cost support and special access ratemaking, the Commission represcribes the currently authorized rate of return from 11.25 percent to 9.75 percent. The Commission primarily relies on the methodology and data contained in the Wireline Competition Bureau's Staff Report, with some minor corrections and adjustments, identifies a more robust zone of reasonableness between 7.12 percent and 9.75 percent, and adopts a new rate of return at the upper end of this range. A-CAM currently uses an input value for the cost of money of 8.5 percent. The Bureau relied on the same methodology when it adopted that value for use in CAM, but focused solely on data from price cap carriers to select the input

value for the price-cap carrier model. Consistent with the Commission’s decision below regarding the authorized rate of return for rate-of-return carriers, now adopt an input value of 9.75 percent for the cost of money in A-CAM, thereby reflecting our consideration of the circumstances affecting rate-of-return carriers.

44. The Commission directs the Bureau to calculate support using a \$200 per-location funding cap, rather than an extremely high-cost threshold. The Commission concludes that this methodology is preferable because it provides some support to all locations above the funding threshold. Even though the locations at or above the funding cap are not “fully funded” with model support, carriers will receive a significant amount of funding – specifically, \$200 per month for each of the capped locations – which will permit them to maintain existing voice service and expand broadband in these highest-cost areas to a defined number of locations depending on density, or upon reasonable request, using alternative, less costly technologies where appropriate. This will allow significantly more high-cost locations to be served than if the Commission were to use a lower funding cap. The Commission notes that a \$200 per-location funding cap is significantly higher than what was adopted for purposes of the offer of support to price cap carriers: price cap carriers only receive a maximum amount of \$146.10 in support per location (\$198.60 minus the \$52.50 funding benchmark), while the approach the Commission adopts for rate-of-return areas will provide full support for locations where the average cost is \$252.50 per location.

45. The Commission adopts a funding benchmark of \$52.50, which is the same benchmark the Bureau adopted in its final version of CAM for purposes of making the offer of model-based support to price cap carriers. Based on the extensive record in the Connect America Phase II proceeding, the Bureau adopted a methodology for establishing a funding benchmark based on reasonable end user revenues. The Bureau adopted a blended average revenue per user (ARPU) of \$75 that reflected revenues a carrier could reasonably expect to receive from each subscriber for providing voice, broadband, or a combination of those services. At the time, the speed standard was 4/1 Mbps, and the Bureau relied on information in the record regarding service offerings at or close to that speed. Now, the carriers electing

model-based support will be required to offer 10/1 Mbps service, and 25/3 Mbps service to some subset of their customers, and therefore may earn higher revenues from their broadband services. The Bureau also adopted an expected subscription rate of 70 percent for purposes of estimating the amount of revenues a carrier may reasonably recover from end-users, and by extension, the funding benchmark. Applying an assumed ARPU of \$75 and the 70 percent expected subscription rate, the funding benchmark is \$52.50 per location. The record before the Bureau for CAM contained varying estimates and the Bureau acknowledged that forecasting potential ARPU for recipients of model-based support and the expected subscription rate necessarily requires making a number of predictive judgments. Nothing in the record before us now persuades us that consumers in rate-of-return carriers are less likely to subscribe to broadband where it is available than consumers served by price cap carriers.

46. The Commission is not persuaded that they should establish a different funding benchmark for purposes of making the offer of model-based support to rate-of-return carriers. During the A-CAM development process, the Bureau has released 15 versions of illustrative results and all but two used a funding benchmark of \$52.50. Two versions used a \$60 benchmark because commenters had suggested that a higher benchmark may be an alternative method for excluding areas served by an unsubsidized competitor. These and other commenters now support using a per-location funding cap rather than a higher benchmark.

47. One commenter argues that a subscription rate of 70 percent is too high and that the Commission should use 50 percent, because the adoption rate for the 10 Mbps speed tier in rural areas was only 47 percent in the 2015 Broadband Progress Report. Given the increasing demand for higher broadband speeds, the Commission does not find that a 47 percent adoption rate is a realistic prediction of adoption rates in rural areas over the 10-year term. One reason that subscription rates are lower, on average, in rural areas today is the fact that 10/1 Mbps broadband service is not available to the same extent as urban areas. As broadband service is deployed more widely in high-cost areas with assistance from the federal high-cost program, as well as additional funding from state programs, the Commission would expect subscription rates in rural areas to become more similar to rates in urban areas. In addition,

carriers will be required to provide broadband to some locations receiving capped funding, so the Commission expects carriers will be receiving broadband revenue from these customers, as well as any voice revenues. A 50 percent subscription rate would result in a funding benchmark of only \$35, a much lower per-location funding cap, and would reduce the amount of support going to the highest-cost areas given that the amount of money across carriers electing the model will be finite. The Commission declines to adopt a measure that would have the effect of skewing support so drastically to the companies that are, relatively speaking, lower cost compared to other rate-of-return carriers.

48. The Commission also concludes that it should prioritize model support to those areas that currently are unserved and direct the Bureau to exclude from the support calculations those census blocks where the incumbent rate-of-return carrier (or its affiliate) is offering voice and broadband service that meets the Commission's minimum standards for the high-cost program using FTTP or cable technology. For purposes of implementing this directive, the Bureau shall utilize June 2015 FCC Form 477 data that has been submitted and certified to the Commission prior to the date of release of this order; carriers may not resubmit their previously filed data to reduce their reported FTTP or cable coverage. While the Commission recognizes that these deployed census blocks require ongoing funding both to maintain existing service and in some cases to repay loans incurred to complete network deployments, it concludes that it is appropriate to make this adjustment to the model in order to advance our policy objective of advancing broadband deployment to unserved customers. Our decision to exclude from support calculations this subset of census blocks in no way indicates a belief that once networks are deployed, they no longer require support; rather, the Commission assumes that the carriers that have already deployed FTTP or cable broadband have done so within the existing legacy support framework. They will continue to receive HCLS and support through the reformed ICLS mechanism, and thus there is no need for a new mechanism to support their existing deployment. Those carriers are not required to elect model-based support and therefore this decision does not drastically reduce their support, as some allege.

49. When the Commission directed the Bureau "to undertake further work to update the

Connect America Cost Model to incorporate the study area boundary data, and such other adjustments as may be appropriate,” the Commission did not envision revisiting the fundamental decisions made by the Bureau in developing CAM, such as the decision to develop a FTTP model. Adopting a significantly different model, such as a digital subscriber line (DSL) model for use in rate-of-return areas, would have significantly delayed this process and would have been backwards looking. The Commission concludes the changes adopted above should provide sufficient support for carriers interested in the model and account for most of the unique circumstances of different rate-of-return carriers. Therefore, the Commission declines to make further changes to data sources or model design as requested by some commenters.

50. Finally, the Commission rejects arguments in the record that the model should not be adopted because it produces support amounts that vary, in some cases significantly, from the amounts that particular carriers are currently receiving under the legacy mechanisms or that vary from actual costs of fiber-to-the-home construction. Some commenters cite a study conducted by Vantage Point comparing A-CAM results to FTTP engineering estimates and actual outside plant costs from 144 wire-center-wide projects to support their arguments that the model is not accurate. The Commission does not find that the Vantage Point analysis of variability between model results and its proprietary engineering data to be a useful comparison for several reasons. In particular, the Commission is not persuaded by the case study, node-by-node comparisons because the engineering data reflect a different network architecture than the network modeled in A-CAM. A-CAM assumes a Gigabit-Capable Passive Optical Network (GPON), with splitters in the field. Vantage Point’s examples place the splitters in the central office, with one dedicated fiber for each end-user location. Instead of sharing one high-capacity fiber for up to 32 locations for some distance from the central office, the Vantage Point approach includes the cost for up to 32 fibers along the entire distance covered by outside plant. The Commission recognizes that placing splitters in the central office can lead to higher utilization and lower cost per location for splitters; however, they generally expect the higher cost for fiber materials and installation (including, for example, much greater splicing expense) greatly to outweigh any savings gained from better splitter utilization.

Vantage Point did not provide enough information in its filings to quantify the impact of dedicated fibers in the feeder plant. In addition, Vantage Point's claim that the model shows consistent deviation based on cost per subscriber is misleading because Vantage Point uses cost per actual subscriber, whereas A-CAM uses cost per location passed. Even if there were no variation in cost, areas that would be more expensive on a per-subscriber basis would have lower A-CAM calculated costs unless the take rate were 100 percent.

51. As discussed above, A-CAM estimates the average monthly forward-looking economic cost of operating and maintaining an efficient, modern network, and is not intended to replicate the actual costs of a specific company at any particular point in time. Although one might expect forward-looking costs to capture greater efficiencies and, therefore, be lower than embedded costs, in fact, the forward-looking loop costs from A-CAM for most study areas are higher than embedded loop costs reported by rate-of-return carriers to NECA. In many cases, model-based support is less than legacy support, not because A-CAM calculates lower costs for a particular study area, but because the model excludes from support calculations those census blocks that are presumed to be served by an unsubsidized competitor offering voice and 10/1 Mbps service. This is consistent with the Commission's policy adopted in the 2011 USF/ICC Transformation Order to condition Connect America Fund broadband obligations for fixed broadband on not spending the funds in areas already served by an unsubsidized a competitor. In other cases, model-based support is more than legacy support, not because the model overestimates the cost of serving an area, but because some companies serving high-cost areas previously have "fallen off the cliff" and lost HCLS due to the past operation of the indexed cap. Other companies may have underinvested in their networks. Providing model-based support to these carriers would not provide a "windfall," as some have suggested, but rather would further the Commission's policy goal of providing appropriate incentives to extend broadband to unserved and underserved areas.

52. Budget. Given the benefits and certainty of the model, the Commission believes it is appropriate to use additional high-cost funding from the high-cost reserve account to encourage companies to elect model support. The Commission notes that the Commission previously instructed

USAC that if contributions to support the high-cost support mechanisms exceed high-cost demand, excess contributions were to be credited to a Connect America Fund reserve account. USF/ICC Transformation Order. The Commission concludes there is no need to maintain a separate reserve account. To simplify the accounting treatment of high-cost reforms going forward, the Commission now directs USAC to eliminate the Connect America Fund reserve account and transfer the funds to the high-cost account. Going forward, USAC shall credit excess contributions to support the high-cost mechanism to the high-cost account and shall use funds from the high-cost account to reduce high-cost demand to \$1.125 billion in any quarter that would otherwise exceed \$1.125 billion. USF/ICC Transformation Order, 26 FCC Rcd at 17847, para. 562. The Commission therefore adopts a budget of up to an additional \$150 million annually, or up to \$1.5 billion over the 10-year term, utilizing existing high-cost funds to facilitate the voluntary path to the model. By making this funding available to those carriers that are willing to meet concrete and defined broadband deployment obligations, including those who will see reductions in their support, the Commission will advance our objective of extending broadband to currently unserved consumers.

53. At this point it is difficult to predict the extent to which companies may be interested in the voluntary path to the model and what the overall budgetary impact might be of such carrier elections. Even so, the Commission predicts that such additional funding will be sufficient to cover significant deployment and support elections to the model, including for those who will receive transition payments for a limited time in addition to model-based support. The Commission recognizes that carriers may have a variety of reasons for electing model support. In general, those carriers for whom A-CAM produces a significant increase in support over legacy support are more likely to elect model support than those who see little increase or a decrease, assuming that they view the increase in support as sufficient to meet the associated deployment obligations. At the same time, the Commission does not expect that all carriers for whom model-based support is significantly greater than legacy support will make the election: some companies may not be prepared to meet the specific defined broadband build-out obligations that come with such support, while others may not be ready at this time to move to incentive regulation for their

common line offering. The Commission describes below how they will adjust the offer of support and obligations to meet the defined CAF-ACAM budget.

54. The first step in determining the budgetary impact is to identify the universe of carriers that will potentially elect model-based support. After the final A-CAM results implementing the decisions the Commission adopts today are released, carriers will indicate within 90 days whether they are interested in electing model-based support. The final released results for the adopted model effectively will create a ceiling—the maximum amount of CAF-ACAM support a carrier may receive with the maximum number of associated locations. Once the carriers indicate their interest, the Bureau will total the amount of model-based support for electing carriers and determine the extent to which, in the aggregate, their model-based support plus transition payments exceed the total legacy support received for 2015 by that subset of rate-of-return carriers. For purposes of this calculation, the Bureau will sum the model-based support amounts and transition payments, if any, for carriers for whom model-based support is less than 2015 legacy HCLS and ICLS support. If that increase is \$150 million or less, no adjustment to the offered support amounts or deployment obligations will be necessary, the Commission will not lower the \$200 per location funding cap, and those carriers that indicated their interest will be deemed to have elected the voluntary path to the model. If demand can be met with the amounts adopted today, unused funding will remain in the high-cost account. The Commission at that time may consider whether circumstances warrant allocation of an additional \$50 million in order to maintain the \$200 per location funding cap. In either of these situations, the initial indication of interest is irrevocable. Absent an additional allocation, the Bureau will lower the per-location funding cap to a figure below \$200 per location to ensure that total support for carriers electing the model remains within the budget for this path.

55. Reducing the funding cap per location would have the effect of reducing the number of fully funded locations that will be subject to defined broadband deployment obligations. Recognizing that these electing carriers may require more time to consider a revised offer, the Commission will require them to confirm their acceptance of the revised offer within 30 days.

56. Election Process. The Bureau will release a Public Notice showing the offer of model-

based support for each carrier in a state, predicated upon a monthly funding cap per location of \$200. In addition to support amounts for these carriers, the Bureau will identify their deployment obligations, including the number of locations that are “fully funded” and the number that would receive capped support. Carriers then will be required to make their elections.

57. The Commission adopts our proposal to require participating carriers to make a state-level election, comparable to what the Commission required of price cap carriers. Our approach prevents rate-of-return carriers from cherry-picking the study areas in a state where model support is greater than legacy support, and retaining legacy support in those study areas where legacy support is greater. Requiring carriers with multiple study areas in a state to make a state-level election will allow them to make business decisions about managing different operating companies on a more consolidated basis. Carriers considering this voluntary path to the model will need to evaluate on a state-level basis whether the support received for multiple study areas, on balance, is sufficient to meet the state-level number of locations that must be served.

58. Because the Commission intends that the model-based path spur additional broadband deployment in those areas lacking service, they conclude that they will not make the offer of model-based support to any carrier that has deployed 10/1 broadband to 90 percent or more of its eligible locations in a state, based on June 2015 FCC Form 477 data that has been submitted as of the date of release of this Order. This will preserve the benefits of the model for those companies that have more significant work to do to extend broadband to unserved consumers in high-cost areas, and will prevent companies from electing model-based support merely to lock in existing support amounts. The Commission recognizes that carriers that are fully deployed in some cases have taken out loans to finance such expansion and therefore may have significant loan repayment obligations for years to come. Carriers that have heavily invested in recent years are likely to be receiving significant amounts of HCLS, however, and will continue to receive HCLS as well as CAF BLS, which is essentially equivalent to ICLS. Therefore, they are not prejudiced by their inability to elect the voluntary path to the model.

59. Carriers should submit their acceptance letters to the Bureau at

ConnectAmerica@fcc.gov. To accept the support amount for a state or states, a carrier must submit a letter signed by an officer of the company confirming that the carrier elects model-based support amount as specified in the Public Notice and commits to satisfy the specific service obligations associated with that amount of model support. A carrier may elect to decline funding for a given state by submitting a letter signed by an officer of the company noting it does not accept model-based support for that state. Alternatively, if a carrier fails to submit any final election letter by the close of the 90-day election period, it will be deemed to have declined model-based support.

60. As noted above, after receipt of the acceptances, the Bureau then will determine whether the model support of electing carriers exceeds the overall 10-year budget for the model path set by the Commission. If necessary, the Bureau will publish revised model-based support amounts and revised deployment obligations, available only to those carriers that initially indicated they would take the voluntary election of model-based support. Carriers will be required to confirm within 30 days of release of this Public Notice that they are willing to accept the revised final offer; if they fail to do so, they will be deemed to have declined the revised offer.

61. If the Commission proceeds to the second step of the election process, those carriers that initially accepted but subsequently decline to accept the revised offer will continue to receive support through the legacy mechanisms, as otherwise modified by this Order. If the carrier received more support from the legacy mechanisms in 2015 than it was offered by the final model run, the overall budget for all carriers that receive support through the rate-of-return mechanisms (HCLS and reformed ICLS) will be reduced by the difference between the carrier's 2015 legacy support amount and the final amount of model support offered to that carrier. That difference will already have been redistributed amongst the remaining model carriers.

62. Broadband Coverage. The current version of the model contains December 2014 Form 477 broadband deployment data and voice subscription data. The Commission recognizes that FCC Form 477 filers certifying that they offer broadband at the requisite speeds to a particular census block may not fully cover all locations in a census block. The Commission finds, however, that targeting the

model-based support to the census blocks where no competitor has certified that it is offering service is a reasonable way to ensure that they do not provide support to census blocks that have some competitive coverage. Like our decision to exclude from model-support calculations those blocks where the incumbent already has deployed FTTP, the Commission seek to target support to areas of greater need.

63. The current version of A-CAM utilizes FCC Form 477 broadband deployment data as of December 31, 2014. While it is unlikely there has been a significant increase in broadband coverage in the intervening year by unsubsidized competitors in the specific blocks eligible for support in rate-of-return areas, i.e. those that are higher cost, the Commission does want to take steps to ensure that support is not provided to overbuild areas where another provider already is providing voice and broadband service meeting the Commission's requirements. The Commission therefore adopts a streamlined challenge process. The Commission directs the Bureau to incorporate into the model the recently released June 2015 FCC Form 477 data, and to provide a final opportunity for commenters to challenge the competitive coverage contained in the updated version of the model. Comments to challenge the coverage data or provide other relevant information will be due 21 days from public notice of the updated version of the model. The Commission notes that Form 477 filers are under a continuing obligation to make corrections to their filings. Indeed, in the wake of releasing version 2.1 of the A-CAM, a number of carriers have submitted letters noting corrections in Form 477 filings. The Commission directs the Bureau to review and incorporate as appropriate any Form 477 corrections to June 2015 data that are received in this challenge process, so that these updates are reflected in the final version of the model that is released for purposes of the offer of support.

64. Tiered Transitions. The Commission adopts a three-tiered transition for electing carriers for whom model-based support is less than legacy support, based on the ITTA/USTelecom proposed glide path. In addition to model-based support, these carriers will receive a transition amount based on the difference between model support and legacy support. Based on our review of the record received in response to the concurrently adopted FNPRM, they now conclude that a tiered transition is preferable because it recognizes the magnitude of the difference in support for particular carriers. At the same time,

the transition is structured in a way that prevents carriers for whom legacy support is greater than CAF-ACAM support from locking in higher amounts of support for an extended period of time.

65. Tier 1. If the difference between a carrier's model support and its 2015 legacy support is 10 percent or less, in addition to model-based support, it will receive 50 percent of that difference in year one, and then will receive model support in years two through ten.

66. Tier 2. If the difference between a carrier's model support and its 2015 legacy support is 25 percent or less, but more than 10 percent, in addition to model-based support, it will receive an additional transition payment for up to four years, and then will receive model support in years five through ten. The transition payments will be phased-down twenty percent per year, provided that each phase-down amount is at least five percent of the total legacy amount. If twenty percent of the difference between model support and legacy support is less than five percent of the total legacy amount, the carrier would transition to model support in less than five years.

67. Tier 3. If the difference between a carrier's model support and its 2015 legacy support is more than 25 percent, in addition to model-based support, it will receive an additional transition payment for up to nine years, and then will receive model support in year ten. The transition payments will be phased-down ten percent per year, provided that each phase-down amount is at least five percent of the total legacy amount. If ten percent of the difference between model support and legacy support is less than five percent of the total legacy amount, the carrier would transition to model support in less than ten years.

68. The Commission declines to adopt one commenter's proposed "safety net" that would limit a carrier's decrease in support in any year to five percent. The Commission concludes that a maximum of 10 years is sufficient time for electing carriers to transition down fully to their model-based support amount. By specifying in advance how this transition will occur, carriers will have all the information necessary to evaluate the possibility of electing model support. Carriers that find ten years insufficient time to transition to a lower amount remain free to remain on the reformed legacy mechanisms. The Commission requires rate-of-return carriers receiving transition payments in addition

to model-based support to use the additional support to extend broadband service to locations that are fully-funded or that receive capped support.

69. Oversight and Non-Compliance. The Commission has previously adopted for “ETCs that must meet specific build-out milestones . . . a framework for support reductions that are calibrated to the extent of an ETC’s non-compliance with these deployment milestones.” Today, the Commission adopts specific defined deployment milestones for rate-of-return carriers electing model-based support and therefore the previously adopted non-compliance measures will apply.

70. As established in the general oversight and compliance framework in the December 2014 Connect America Order, 80 FR 4446, January 27, 2015, a default will occur if an ETC is receiving support to meet defined obligations and then fails to meet its high-cost support obligations. In section 54.320(d), the Commission has already set forth in detail the support reductions for ETCs that fail to meet their defined build-out milestones. The table below summarizes the regime previously adopted by the Commission for non-compliance with build-out milestones.

**Non-Compliance Measures**

<b>Compliance Gap</b>	<b>Non-Compliance Measure</b>
5% to less than 15%	Quarterly reporting
15% to less than 25%	Quarterly reporting + withhold 15% of monthly support
25% to less than 50%	Quarterly reporting + withhold 25% of monthly support
50% or more	Quarterly reporting + withhold 50% of monthly support for six months; after six months withhold 100% of monthly support and recover percentage of support equal to compliance gap plus 10% of support disbursed to date

71. Reporting Requirements. As discussed below, the Commission requires all rate-of-return carriers to submit the geocoded locations to which they have newly deployed facilities capable of delivering broadband meeting or exceeding defined speed tiers. The Commission directs the Bureau to work with USAC to develop an online portal that will enable electing carriers to submit the requisite information on a rolling basis throughout the year as construction is completed and service becomes commercially available, with any final submission no later than March 1st in the following year.

**B. Reforms of Existing Rate of Return Carrier Support Mechanism**

72. For rate-of-return carriers that do not elect to receive high-cost universal service support based on the A-CAM model, the Commission modernizes its embedded cost support mechanisms to encourage broadband deployment and support standalone broadband. Specifically, the Commission makes technical rule changes to our existing ICLS rules to support the provision of broadband service to consumers in areas with high loop-related costs, without regard to whether the loops are also used for

traditional voice services. The Commission renames ICLS “Broadband Loop Support” as a component within the Connect America Fund (CAF BLS). Further, building on proposals in the record from the carriers, the Commission adopts operating expense limits, capital expenditure allowances, and budgetary controls that will be applicable to the HCLS and CAF BLS mechanisms to ensure efficient use of our finite federal universal service resources. These reforms together will better target support to advance the Commission’s longstanding objective of closing the rural-rural divide in which some rural areas of the country have state-of-the-art broadband, while other parts of rural America have no broadband at all. The Commission expects that the combined effect of these measures will be to distribute support equitably and efficiently, and that all rate-of-return carriers will benefit from the opportunity to extend broadband service where it is cost-effective to do so.

**1. Support for Broadband-Only Loop Costs for Rate-of-Return Carriers**

73. The Commission now adopts technical changes to our existing ICLS rule to provide support for rate-of-return carriers’ broadband-capable network loop costs, without regard to whether the loops are used to provide voice or broadband-only services. As explained above, although our existing HCLS and ICLS rules both support the loop costs associated with broadband-capable networks, they were developed specifically to support the costs of voice networks and do not provide cost recovery for loop costs associated with broadband-only services. After careful consideration of the various alternatives presented in the record, the Commission concludes that the simplest, most effective and administratively feasible means to address this concern is to expand the ICLS mechanism to permit recovery of consumer broadband loop costs. In a pending Petition for Reconsideration and Clarification of the USF/ICC Transformation Order, NECA, OPASTCO, and WTA argued, among other claims, that the Commission should adopt a Connect America Fund mechanism prior to imposing broadband obligations on rate-of-return carriers. Petition for Reconsideration and Clarification of the National Exchange Carrier Association, Inc.; Organization for the Promotion and Advancement of Small Telecommunications Companies; and Western Telecommunications Alliance, WC Docket 10-90, et al. at 2-6 (filed Dec. 29, 2011) (NECA et al. Petition). Our existing mechanisms have provided support for broadband-capable

networks for more than a decade, and the Commission are now adopting changes to our rules to provide support explicitly for broadband-only lines. The Commission therefore denies the Petition as moot. As noted above, to recognize the scope of the expanded mechanism and fulfillment of our commitment to create a Connect America Fund for rate-of-return carriers, the Commission changes the name of ICLS to CAF BLS.

74. By providing support for the costs of broadband-only loops, while continuing to provide cost recovery for voice-only and voice-broadband loops, the expanded CAF-BLS mechanism will create appropriate incentives for carriers to deploy modern broadband-capable networks and to encourage consumer adoption of broadband services. The difference in loop-related expenses between broadband-only and traditional voice service over broadband-capable loops tends to be quite small, but the cost recovery varies significantly. Indeed, different treatment of loop cost recovery can be triggered by a customer's decision to drop the voice component of a voice-data bundle, without any other changes in service by the carrier. Similar changes to loop cost recovery occur if a carrier offers an IP-based voice service rather than a traditional voice service: only loops used to provide regulated local exchange voice service (including voice-data bundles) are eligible for high-cost universal service under our current rules. Supporting all consumer loops will minimize the discrepancies in treatment between those service offerings, while removing potential regulatory barriers to taking steps to offer new IP-based services in innovative ways. Thus, this step advances the statutory goal of providing access to advanced telecommunications and information services in all regions of the Nation, particularly in rural and high-cost areas, and the principle adopted in the USF/ICC Transformation Order that universal service support should be directed where possible to networks that provide advanced services, as well as voice services.

75. Implementing this expansion of the traditional ICLS mechanism requires several actions. As noted above, the current ICLS mechanism operates by providing each carrier with the difference between its interstate common line revenue requirement and its interstate common line revenues. Going forward, CAF-BLS also will provide cost recovery for the difference between a carrier's loop costs associated with providing broadband-only service, called the "consumer broadband-only loop revenue

requirement” and its consumer broadband-only loop revenues. In this Order, the Commission adopts rules that define the consumer broadband-only loop costs as the same, on a per-line basis, as the costs that are currently recoverable for a voice-only or voice/broadband line in ICLS. To avoid double-recovery, an amount equal to the consumer broadband-only revenue requirement will also be removed from the special access cost category. Carriers will be required to certify to USAC, as part of their CAF-BLS data filings, that they have complied with our cost allocation rules and are not recovering any of the consumer broadband-only loop cost through the special access cost category. For consumer broadband-only loop revenue, CAF-BLS will initially impute the lesser of \$42 per loop per month or its total consumer broadband loop revenue requirement. For true-up purposes, CAF BLS will impute the consumer broadband rate the carrier was permitted charge, if it is higher than the amount that would be imputed otherwise. As described below, the Commission also adopts today a budgetary constraint on the total aggregate amount of HCLS and CAF-BLS support provided for rate-of-return carriers to ensure that support remains within the established budget for rate-of-return territories. To the extent that budgetary constraint reduces CAF-BLS support in any given year, any CAF BLS provided will be first applied to ensure that each carrier’s interstate common line revenue requirement is met. If, due to the application of the budgetary constraint, additional revenue is required to meet its consumer broadband loop revenue requirement, that revenue may be recovered through consumer broadband loop rates, even if that results in a carrier charging a broadband loop amount greater than \$42 per loop per month.

76. This approach meets the four principles of reform that the Commission previously articulated in the April 2014 Connect America Further Notice, while also being simple and easy for affected carriers to understand and implement. The budget constraint ensures that the support amounts will remain within the existing rate-of-return budget. The CAF-BLS mechanism distributes support fairly and equitably among carriers. Consistent with our authority to encourage the deployment of the types of facilities that will best achieve the principles set forth in section 254(b), it will allow carriers to receive federal high-cost universal service support for their network investment regardless of what services are ultimately purchased by the customer. When combined with the capital expense and operational expense

limitations adopted below, CAF BLS will help ensure that no carrier collects support for excessive expenditures. The CAF-BLS mechanism is forward-looking because it completes the Commission's modernization of the high-cost program to focus on broadband, consistent with the evolution of technology toward IP networks.

77. And finally, the reforms the Commission adopts today avoid double-recovery of costs by removing from special access the costs associated with broadband-only loops and then ensuring that the carriers' regulated revenues match their revenue requirements. The Commission finds this approach administratively preferable to alternative approaches. For example, one possibility would be to expand both ICLS and HCLS to include broadband-only loops. However, HCLS was designed to support local (i.e., intrastate) voice rates and does not take into account the costs or revenues from broadband-only services. In addition, the schedule for developing HCLS amounts is incompatible with the schedule for developing wholesale transmission tariffs for broadband services. As a result, the Commission's principle of avoiding double recovery could not be met without making significant changes to either the HCLS rules or the tariff process. Alternatively, the Commission could adopt a separate mechanism to support broadband-only loops, as proposed by NTCA. In practice, the expanded CAF-BLS mechanism will be operationally similar to NTCA's proposed DCS mechanism. Both essentially provide support for broadband-only costs to the extent that they exceed an imputed revenue amount, but allow the carrier to recover additional revenues through tariffs to the extent that the budgetary constraint prevents them from meeting their revenue requirement. The Commission finds, however, that expanding the CAF-BLS mechanism to include broadband-only loops will further reduce unnecessary distinctions between the two categories of loops, which will advance our objective to move the existing program to broadband. Finally, the Commission considered the "bifurcated" approach developed in the record by USTelecom with significant input from other parties.

78. The latter approach would create a wholly new mechanism and bifurcate investment and associated expenses between old and new mechanisms. The Commission appreciates the good faith efforts of numerous parties to determine how such a mechanism might be implemented and to estimate its

potential impact. While it had a number of merits, the Commission has come to the conclusion that the approach they adopt today is simpler and sufficient to accomplish our goals for reform. The Commission therefore chooses to build upon the framework of an existing rule that carriers are familiar with, which will not require significant changes to their internal existing accounting systems and other processes for the development of cost studies. Carriers should be able readily to estimate their future support flows under this revision to the existing rule.

79. Consumer broadband loop revenue benchmark. For the purpose of calculating CAF BLS, the Commission adopts a revenue imputation of \$42 per loop per month, or \$504 per loop per year for consumer broadband-only loops, except as described below. This amount is consistent with other recent estimates of reasonable end-user revenues, when adjusted for context. For example, in adopting a cost model to be used for the Phase II offer of support to price cap carriers, the Bureau based its support threshold for model-based support on an average revenue per user (ARPU) of \$75. That ARPU, however, was an all-inclusive estimate of end-user revenues for broadband and voice services, while the benchmark the Commission adopts here presumes that carriers would still need additional end-user revenues to cover non-loop related costs, such as middle-mile costs. Similarly, for a broadband service of 10/1 Mbps and unlimited usage, the Commission's 2015 reasonable comparability benchmark was \$77.81. NECA estimated a median non-loop cost of \$34.95 per month to provide 10/1 Mbps for its member carriers that participate in its "DSL voice-data" tariff. Subtracting the monthly revenue associated with those non-loop revenues from the ARPU used for the model support threshold or the reasonable comparability benchmark for retail broadband Internet access suggests that \$42 is an appropriate estimate for monthly end-user revenue for the consumer broadband loop costs, the remainder of which will be recovered through CAF BLS, subject to the budgetary constraint discussed below.

80. There are two cases in which the Commission will impute a different consumer broadband loop revenue amount than \$42 per loop per month. First, when a carrier's consumer broadband loop revenue requirement is less than \$42 per loop per month, CAF BLS will only impute the actual consumer broadband loop revenue requirement. For example, if a carrier has 1,000 consumer

broadband-only loops with an average cost of \$41 per month, its imputed annual revenue would be \$492,000 ( $\$41 * 1,000 * 12$ ), rather than \$504,000 ( $\$42 * 1,000 * 12$ ). Without this exception, consumer broadband loops could create “negative” CAF-BLS amounts for some carriers in its initial calculation. The effect of the negative CAF-BLS amounts would be to reduce overall CAF BLS and require above-cost consumer broadband rates to replace lost CAF BLS that would otherwise subsidize voice loops. This exception will prevent a cross-subsidy of voice service by consumer broadband-only service that may not otherwise be necessary.

81. The second exception is that, solely for the purpose of calculating true-ups, CAF BLS will impute the consumer broadband rate the carrier was permitted to charge, if it is higher than the amount that would be imputed otherwise. For example, if a carrier had 1,000 loops and, as a result of the operation of the budgetary constraint, its consumer broadband loop rate was \$43 per month, the annual revenue imputation would be \$516,000 ( $\$43 * 1,000 * 12$ ), rather than \$504,000. Using actual revenues for true-ups in this way will recognize additional revenue that the carrier would have received and prevent duplication of cost recovery between CAF BLS and special access rates. This will result in a carrier having imputed consumer broadband-only revenue that exceeds its consumer broadband-only revenue requirement, but that is necessary to ensure that both its interstate common line revenue requirement and its consumer broadband loop revenue requirement are met even when the budgetary constraint is applied.

## **2. Operating Expense Limitation**

82. Discussion. The Commission adopts the regression methodology submitted by industry representatives with a few modifications to conform the limits better to the nature of the data. The Commission defers implementation of this rule change for Alaska carriers pending Commission consideration of the unified plan for incentive regulation submitted by the Alaska Telephone Association on behalf of Alaska rate-of-return carriers and mobile wireless providers. The Commission finds that a mechanism to limit operating costs eligible for support under rate-of-return mechanisms, both HCLS and CAF BLS, will encourage efficient spending by rate-of-return carriers and will increase the amount of universal service support available for investment in broadband-capable facilities. These opex limits will

apply to cost recovery under HCLS and CAF BLS and will be applied proportionately to the accounts used to determine a carrier's eligible operating expense for HCLS and CAF BLS. The Commission notes that a small number of carriers have not provided this information in the past. Carriers that do not provide study area level cost studies to NECA will have to provide USAC with data from the following four accounts: 1) Account 6310: Information origination/termination expenses; 2) Account 6510: Other property plant and equipment expenses; 3) Account 6610: Customer operations expense: Marketing; and 4) Account 6620: Customer operations expense: Services. For example, if the regression methodology determines that a carrier's eligible operating expense should be reduced by 10 percent, then each account used to determine that carrier's eligible operating expense shall be reduced by 10 percent.

83. Consistent with the general approach submitted by the industry associations, operating expense costs will be limited by comparing each study area's opex cost per location to the regression model-generated opex per location plus 1.5 standard deviations. The regression formula to be used is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3,$$

Y is the natural log of opex cost per housing unit,

$\alpha$  is the coefficient on the constant (i.e. 1) in the regression,

$X_1$  is the natural log of the number of housing units in the study area, with a regression coefficient  $\beta_1$ ,

$X_2$  is the natural log of density (number of housing units per square mile), with a regression coefficient  $\beta_2$ , and

$X_3$  is the square of the natural log of density, with a regression coefficient  $\beta_3$ .

84. The Commission does not agree with commenters who argue that they should only limit operating expenses for carriers with costs above the two standard deviations. Indeed, the Commission notes that using two standard deviations would subject only an estimated 17 study areas to an opex limit. The Commission concludes that using 1.5 standard deviations – which they estimate, based on last year’s data, would have impacted roughly 50 carriers – more appropriately advances the Commission’s goal of providing better incentives for carriers to invest prudently and operate more efficiently. Because any support reductions associated with this limit will then be available to other rate-of-return carriers, our budget for high-cost support should enable more broadband deployment than if the Commission continued funding excessive operating expenses for certain companies at current levels.

85. The Commission declines to set different limits based on the separate density categories initially proposed by the industry because density is already taken into account as a variable in the regression analysis. The Commission sees no legal or economic justification for modifying the allowable opex expense a second time. Using density again in this fashion has the effect of arbitrarily raising the allowable opex expense limit for some rural carriers at the direct expense of the other carriers serving high-cost areas that are nearly as sparsely populated. Moreover, even if the Commission were inclined to do so, the proponents of this approach have failed to explain in the record why it would be appropriate to draw the line at 1.5 locations per square mile, as opposed to 2 locations per square mile, 4 locations per square mile, or some other figure. Therefore, the Commission adopts a uniform standard deviation formula for purposes of setting a limit based on the regression results.

86. In addition, unlike the industry’s original proposal, the Commission includes corporate expenses (calculated according to the current limitation) within the regression. These expenses are a significant portion of carrier operating expenses, and the Commission concludes that they should be subject to limitation as well. Indeed, corporate expenses alone account for approximately 15 percent of the total costs assigned to the loop for rate-of-return cost companies. Moreover, the Commission is concerned that leaving corporate expenses outside of this overall limitation will provide an opportunity for inappropriate cost shifting from an account where they are above the limit to an account where they

are below the limit.

87. NTCA has argued that “reasonable transitions” are necessary when implementing limitations on support. The Commission concludes that a transition is appropriate to allow carriers time to adjust their operating expenditures. Therefore, the Commission concludes that for the first year in which the opex cap is implemented, the eligible operating expense of those carriers subject to the cap will be reduced by only one-half of the percentage amount determined by the regression methodology. For example, if the regression methodology determines that a carrier’s eligible operating expense should be reduced by 10 percent for the first year in which the opex cap is implemented, then each account used to determine that carrier’s eligible operating expense shall be reduced by only 5 percent. However, in all subsequent years, the carrier’s eligible operating expense shall be reduced by the full percentage amount determined by the regression methodology.

88. Within 30 days of the effective date of this Report and Order, the Commission directs NECA to submit to USAC a schedule of companies subject to limits under the adopted formula. The Commission directs NECA to exclude data for Alaska carriers when making these calculations. The Commission also directs NECA to provide USAC with the dollar amount of reductions in HCLS and CAF-BLS to which each carrier subject to limits under the adopted formula will be subject. USAC shall validate all calculations received from NECA before making disbursements subject to any such support reductions.

### **3. Capital Investment Allowances**

89. Discussion. The Commission adopts the revised capex allowance proposed by the rate-of-return industry associations with minor modifications. The Commission defers implementation of this rule change for Alaska carriers pending Commission consideration of the unified plan for incentive regulation submitted by the Alaska Telephone Association on behalf of Alaska rate-of-return carriers and mobile wireless providers. The Commission believes that this mechanism will help target support to those areas with less broadband deployment so that carriers serving those areas have the opportunity to catch up to the average level of broadband deployment in areas served by rate-of-return carriers. The

Commission directs the Bureau to announce the updated weighted average broadband deployment for all rate-of-return carriers, and the relevant deployment figure for each individual carrier, based on the more recent June 2015 FCC Form 477 data for the initial implementation of this rule, and to publish similar figures reflecting current FCC Form 477 data on an annual basis. Although it is the Commission's goal to ensure broadband deployment throughout all areas, finite universal service resources must be used where they are most needed. Therefore, the Commission finds that on a going forward basis, directing increased support to those areas lagging behind the national average in broadband availability will ensure a more equitable distribution of deployment, thereby achieving one of the goals for reform articulated by the Commission in the April 2014 Connect America FNPRM. The Commission does, however, make several adjustments to the industry's proposal. Vantage Point Solutions argues that an inflation factor with a higher labor component would be more appropriate than the GDP-CPI because Vantage Point's experience shows that approximately 70% of construction costs in rural LEC areas are associated with labor. Letter from Larry D. Thompson, Vantage Point Solutions, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, et al. at 2 (filed Jan. 28, 2016). However, the Commission has used the GDP-CPI, which includes both capital and labor costs, in its HCLS calculations since 2001, and Vantage Point presents no compelling reason as to why an alternative inflation measure should be used here. To the extent any individual carrier has unique circumstances that might warrant an adjustment in its capex allowance, it is free to seek a waiver pursuant to section 1.3 of the Commission's rules.

90. First, the Commission uses the TALPI as the basis for calculating loop plant investment limitations for both HCLS and CAF-BLS, not just for HCLS. To ensure the most efficient use of limited universal service resources, the capital budget limitation must apply to HCLS, which supports the intrastate portion of the exchange loop, and CAF-BLS, which supports the interstate portion. Second, the Commission modifies the investment categories proposed by the associations to determine a carrier's TALPI so that they correspond to those used to determine a carrier's HCLS and CAF BLS. The Commission notes that a small number of carriers have not provided this information in the past. Carriers that do not provide study area level cost studies to NECA will have to provide USAC with data from the

relevant categories and accounts. Amounts in excess of a carrier's AALPI will be removed from the relevant categories or accounts either on a direct basis when the amounts of the new loop plant investment can be directly assigned to a category or account, or on a pro-rata basis according to each category or account's proportion to the total amount in each of the above categories and accounts when the new loop plant cannot be directly assigned.

91. Third, the Commission refines the AALPI adjustment for areas covered by a pre-existing loan. The Commission concludes that the AALPI should only be adjusted for areas covered by a pre-existing loan for which a previously planned loan disbursement has been made and that loan disbursement was used to increase the annual loop expenditure for the year, or years, in which the AALPI adjustment is taken. The Commission makes this modification because an outstanding loan does not per se warrant an increase in a carrier's AALPI unless a previously planned disbursement of that loan leads to an increase in the carrier's loop plant investment.

92. Fourth, rather than adjusting the AALPI by only one half of a percentage point for every percentage point that a carrier's deployment differs from the target availability, the Commission adjusts the AALPI by one percentage point. The Commission finds that an adjustment of only one half of a percentage point will not have a sufficient impact to moderate expenditures by companies that are above average, and also will not provide a sufficient opportunity to catch up to those carriers that must increase their deployment. An increase of one percentage point will allow those carriers that must catch up to the target availability more funds with which to do so.

93. Within 30 days of the effective date of this Report and Order, and for each subsequent quarterly or annual data reporting period, the Commission directs NECA to submit to USAC the following information for each study area:

- Total Allowed Loop Plant Infrastructure
- AALPI for the Current Reporting Period (Current AALPI)
- Current AALPI Adjustment for Percent of Broadband Deployment
- Current AALPI Adjustment for Loan Disbursements

- Current AALPI Adjustment for Broadband Deployment Obligations
- AALPI Amounts Carried Forward from Previous Reporting Periods
- Total AALPI (Equals Current AALPI plus All Adjustments plus Carry Forward)
- Dollar amount of the reduction, if any, in capital expense eligible for HCLS and/or CAF-BLS due to the Total AALPI for the relevant reporting period
- Dollar amount of the reductions, if any, in HCLS and/or CAF BLS due to the carrier's capital expense reduction caused by the Total AALPI for the relevant reporting period

94. USAC shall validate all calculations received from NECA before making disbursements subject to any support reductions due to the Capital Investment Allowance.

#### **4. Eliminating Subsidies in Areas Served by an Qualifying Competitor**

95. In this section, the Commission takes further steps to target high-cost support efficiently to those areas that will not be served by private sector investment alone. First, the Commission prohibits rate-of-return carriers from receiving CAF BLS in areas that are served by a qualifying unsubsidized competitor. Second, the Commission adopts a challenge process to determine which areas are served by unsubsidized competitors building on proposals submitted in the record. Third, as proposed by several commenters, the Commission adopts several options to disaggregate support in areas determined to be served by qualifying competitors: carriers will be free to elect one of several mechanisms to disaggregate their support. Fourth, the Commission adopts a phased reduction in disaggregated support for competitive areas, as suggested by USTelecom and NTCA. The net result of these changes will be to more effectively target CAF BLS to areas where support is needed to ensure consumers are served with voice and broadband services.

96. Discussion. In order to meet our objective of utilizing universal service funds to extend broadband to high-cost and rural areas where the marketplace alone does not currently provide a minimum level of broadband connectivity, the Commission has emphasized its desire to “distribute universal service funds as efficiently and effectively as possible.” Support should be used to further the

goal of universal voice and broadband, and not to subsidize competition in areas where an unsubsidized competitor is providing service. Universal service is ultimately paid for by consumers and businesses across the country. Providing support to a rate-of-return carrier to compete against an unsubsidized provider distorts the marketplace, is not necessary to advance the principles in section 254(b), and is not the best use of our finite resources.

97. To ensure that high-cost universal service support is used efficiently, consistent with the intent of providing universal service where it otherwise would be lacking, the Commission now adopts a rule to eliminate CAF BLS in competitive areas. Building on proposals submitted in the record by NTCA and USTelecom, and taking into account our experience implementing similar requirements in price cap areas and the 100 percent overlap rule in rate-of-return areas, a census block will be deemed to be “served by a qualifying competitor” for this purpose if the competitor holds itself out to the public as offering “qualifying voice and broadband service” to at least 85 percent of the residential locations in a given census block. For purposes of meeting the requirement to “offer” service, the competitor must be willing and able to provide qualifying voice and broadband service to a requesting customer within ten business days.

98. The first step in implementing such a rule is to conduct a process to determine which census blocks are competitively served. The Commission now adopts a challenge process building on lessons learned from both the challenge process utilized to finalize the offer of Phase II model-based support to price cap carriers and the process used to implement the 100 percent overlap rule for rate-of-return carriers. Under this process, the Bureau will publish a Public Notice with a link to a preliminary list of competitors serving specific census blocks according to FCC Form 477 data. As suggested by NTCA and USTelecom, in order for a challenge for a particular census block to go forward, those competitors will be required to certify that they are offering service to at least 85 percent of the locations in the census block, and must provide evidence sufficient to show the specific geographic area in which they are offering service. If they fail to submit such information in response to the Bureau’s Public Notice, the block will not be deemed competitively served. To the extent the competitor provides the

required filing in response to the Bureau's Public Notice, incumbents and any other interested parties such as state public utility commissions and Tribal governments will have the opportunity to contest those assertions. The ultimate burden of persuasion will rest on the competitor to establish that it offers service to at least 85 percent of the locations in the census block, based on all the evidence in the record. The challenge process will be conducted by the Bureau as set forth more fully below.

99. The Bureau will rely on Form 477 broadband deployment data to make the preliminary determination of which census blocks are served by providers offering broadband service. The Form 477 data collection is mandatory, and Form 477 filers must certify to the accuracy of their data. The Commission directs the Bureau to utilize the most recent publicly available data at the time it releases the initial Public Notice.

100. To be considered an unsubsidized competitor in a given census block, a fixed broadband provider must offer service in accordance with the Commission's current service obligations on speed, latency, and usage allowances. In December 2014, the Commission adopted a new minimum speed standard for carriers receiving high-cost support: they must offer actual speeds of at least 10/1 Mbps. Therefore, the Commission directs the Bureau to use 10/1 Mbps as the threshold for determining competitors when developing the preliminary list for the initial implementation of this rule.

101. The Commission is not persuaded by NTCA's proposal that the Commission utilize the current section 706 speed benchmark, at least 25 Mbps downstream and 3 Mbps upstream (25/3 Mbps), as the basis to identify locations where a competitor is present. Although the Commission has determined that 25/3 Mbps reflects "advanced" capabilities, the Commission has explained that "[b]y setting a lower baseline for Connect America funding, they establish a framework to ensure a basic level of service to be available for all Americans, while at the same time working to provide access to advanced services. The areas served by rate-of-return carriers encompass "many rural and remote areas of the country." Similarly, the Commission is not persuaded by WTA's proposal that a competitor must be offering service with speeds at least as high as the highest speed service offering of the incumbent in order to be deemed a qualifying competitor. The Commission finds that using a 10/1 Mbps threshold at the present

time for identification of competitors is consistent with the Commission's section 254 goal of ensuring that universal service funding is used in the most efficient and effective manner to provide consumers in rural and high-cost areas of the country with voice and broadband service.

102. The Commission currently does not collect comprehensive, block-level data on broadband latency or monthly usage allowances, as it does for broadband speed. However, data collected by the Commission through the Measuring Broadband America program suggest that the latencies associated with most fixed broadband services are low enough to allow for real time applications, including Voice over Internet Protocol. In addition, data from the Commission's urban rate survey indicate that many fixed broadband providers offer unlimited data usage or usage allowances well in excess of the 150 GBs per month that they now establish as our baseline requirement for purposes of implementing the competitive overlap rule. Therefore, the Commission concludes it is reasonable to presume that providers meeting the speed criteria also meet the latency and usage-allowance criteria, for purposes of preparing the preliminary list.

103. This is similar to the approach taken by the Bureau in the Connect America Fund Phase II challenge process. One of the lessons learned from the Phase II challenge process was that no party was able to demonstrate high latency by competitors, and very few providers prevailed in a challenge exclusively focused on a competitor's usage/price. This provides us with confidence that, as a general matter, it is reasonable to assume, for purposes of preparing the preliminary list, that a provider that in fact is in the area providing the requisite speed is also meeting the latency and usage requirements.

104. Under our existing rule, to be considered an unsubsidized competitor, a provider must be a facilities-based provider of residential fixed voice service, as well as fixed broadband. Form 477 provides the best data available on whether broadband providers also offer fixed voice service, but the data are not reported at the census block level. Therefore, to determine whether a broadband provider also offers voice service, for purposes of preparing the preliminary list, the Bureau will assume if a broadband provider reported any fixed voice connections in a state in its Form 477 filing, then it offers voice service throughout its entire broadband service area in that state. The Commission notes that in

order to file Form 477, a VoIP provider must be offering interconnected VoIP, which means that the provider is required to provide E911 and comply with CALEA, among other things.

105. The Commission will exclude competitive Eligible Telecommunications Carriers (CETCs) receiving universal service support, as well as affiliates of incumbent LECs, from the analysis undertaken to develop the preliminary list. CETCs that receive universal service support will be excluded from the preliminary determination because these providers are not “unsubsidized.” The Commission also concludes, for purposes of preparing the preliminary list that an affiliate that an incumbent LEC is using to meet its broadband public interest obligation in a given census block shall not be treated as an unsubsidized competitor. If the Commission were to conclude otherwise, a rate-of-return carrier would automatically be precluded from receiving support for new investment in census blocks wherever its affiliate is offering broadband and voice service as a condition of receiving high-cost support. To the extent the Form 477 data indicate that a particular rate-of-return carrier has deployed more than one technology in a given census block, the Commission will presume, for purposes of preparing the preliminary list, that the carrier is utilizing different technologies within a given census block to serve its customers.

106. Once the preliminary list is published, the next step in the process will be for identified competitors to confirm that they are in fact offering voice and broadband service within the specific census block where they report broadband deployment on FCC Form 477. Based on the Phase II challenge experience, the Commission has learned that it is extremely difficult for an incumbent provider to prove a negative – that a competitor is not serving an area. Rather, the purported competitor is in a much better position to confirm that it is offering service in a given area.

107. Upon publication of the preliminary list, there will a comment period in which competitors must certify that they offer both voice and broadband meeting the requisite requirements in a particular census block in order for that block potentially to be subject to a competitive overlap determination. Specifically, as suggested by several parties, they must offer: (1) fixed voice service at rates under the then applicable reasonable comparability benchmark, and (2) fixed terrestrial broadband

service with actual downstream speed of at least 10 Mbps and actual upload speed of at least 1 Mbps; with latency suitable for real time applications, including Voice over Internet Protocol; with usage capacity that is reasonably comparable to offerings in urban areas; and at rates that are reasonably comparable to those in urban areas. To the extent the competitor is meeting the voice service obligation through interconnected VoIP, it will already be subject to requirements for E911 and CALEA, as noted above. The Commission also requires that the competitor be able to port telephone numbers in that census block, as suggested by several commenters. In order to make this certification, a competitor must have hold itself out to the public as offering service to at least 85 percent of the locations in the census block, and be willing and able to provide service to a requesting customer within ten business days. For purposes of this certification, the number of locations shall be based on the most recently available U.S. Census data regarding the number of housing units in a given census block. The Commission notes that our existing rule defines an unsubsidized competitor as a provider of fixed residential voice and broadband service. 47 CFR 54.5 (emphasis added). The Commission is mindful of the burden on the competitor but also need to ensure that information is sufficient for the Commission to evaluate any potential challenges. The Commission clarifies that a mere officer certification is insufficient to establish the presence of qualifying service. As noted above, competitors will be required to submit additional evidence in support of that certification clearly to establish where they are providing service. Even so, because the Commission is cognizant of the potential burden, they do not require competitors to submit geocoded locations but encourage competitors to submit as much information as possible, including neighborhoods served and, for cable companies, boundaries of their franchising agreement.

108. If the competitor fails to submit such a certification and any evidence, the block will be deemed non-competitive, and there will be no need for the incumbent to respond. If, however, the competitor submits the requisite certification that it is offering both qualifying voice and qualifying broadband service in the census block, with supporting information identifying with specificity the geographic areas served, the Commission will then accept submissions from the incumbent or other interested parties seeking to contest the showing made by the competitor. Examples of information that

may be persuasive to establish that service is not being offered includes evidence that a provider's online service availability tool shows "no service available" for customers in the geographic area that the carrier certifies it serves or filings from consumers residing in the geographic area that the competitor has certified is served that they were unable to obtain service meeting the specified requirements from the purported competitor within the relevant time frame.

109. Consistent with the approach taken in the Phase II challenge process, the Commission will not consider any additional evidence or submissions filed by any party after the deadline for reply comments, absent extraordinary circumstances. The Commission thus adopts a procedural requirement that competitive overlap submissions for both purported competitors and incumbents must be complete as filed. After the conclusion of the comment cycle, the Bureau will make a final determination of which census blocks are competitively served, weighing all of the evidence in the record. The Commission delegates authority to the Bureau to take all necessary steps to implement the challenge process they adopts today.

110. The Commission is not persuaded by arguments that it may be premature for the Commission to implement a competitive overlap rule prior to full implementation of the 100 percent overlap rule. The Commission has learned a great deal through developing and implementing both the Phase II challenge process for price cap areas and the 100 percent overlap process. The Commission is adopting a challenge process that builds on lessons learned from both experiences. The Commission concludes that utilizing the procedural requirements adopted for the Phase II challenge process, coupled with putting the burden of proof on the competitor to establish that it serves a census block, will best meet the Commission's objectives for ensuring that support is not provided in areas where other providers are providing service without subsidies.

111. The Commission is not persuaded that it should require competitors to certify they serve 100 percent of the locations in a given census block in order for that census block to be considered "served." Our experience with the implementation of the 100 percent overlap rule shows that such a standard will rarely, if ever be met, even though there may be a significant degree of competitive overlap.

The Commission concludes that adopting an evidentiary showing that the competitor must certify that it serves 85 percent or more – a substantial majority – of residential locations in a census block are served strikes the right balance between the approach used in the Phase II context (where a block was deemed served if the competitor only served as single location) and the 100 percent overlap rule (which required 100 percent coverage for all residential and business locations in all census blocks in the study area) and will serve our overarching policy objectives. Moreover, to the extent the competitor today only serves 85 percent of the requisite number of residential locations in a given census block, it may expand its footprint to serve the entire census block once it no longer is facing a subsidized competitor.

112. The Commission also declines to impose other requirements suggested in the record by WTA, such as requiring a competitor to have an interconnection agreement with the incumbent, be subject to section 251, offer Lifeline, own or lease all of the facilities needed to deliver service, not receive any other forms of federal or state support, including universal service support other than Lifeline, not charge any fees for site visits to determine if service can be provided, even if that fee is credited upon service installation, and comply with state service quality and other regulatory requirements applicable to the incumbent for voice service. WTA fails to provide any explanation of the policy rationale for each of these proposals, many of which seem intended to subject the competitor to the same regulatory requirements as the incumbent. In any event, the net result of these proposals would be to ensure that no entity ever could qualify as an unsubsidized competitor. Nor is the Commission persuaded by WTA's argument that only future new investment should be subject to a competitive overlap rule, and that no support should be reduced for existing investments. The Commission notes that they only are disaggregating and reducing CAF BLS in areas found to be served by unsubsidized competitors, rather than both HCLS and CAF BLS, which will lessen the impact of this rule on affected carriers.

113. As suggested by NTCA and USTelecom, the Commission will conduct the competitive overlap challenge process outlined above every seven years. This will ensure that the Commission periodically revisits the competitive overlap analysis, but not impose excessive burden on incumbents, potential competitors, or Commission staff. Re-examining the extent of competitive overlap in this time

frame will provide stability and consistency for all interested stakeholders.

114. Upon the completion of the competitive overlap determination, the Commission concludes that carriers should be able to select one of several methods to disaggregate support between competitive and non-competitive areas, as suggested by several commenters. The Commission notes that the Commission took a similar approach when it allowed incumbents to disaggregate ICLS in 2001, allowing carriers to select one of several disaggregation paths subject to general parameters established by the Commission. The Commission agrees with commenters that they should utilize a disaggregation mechanism that ensures that sufficient support is provided to those areas where the incumbent is the sole provider of voice and broadband, and the Commission recognizes that competitive areas are likely to be lower cost and non-competitive areas are likely to be relatively higher cost. The Commission therefore adopts a rule to permit carriers, on their own election, to utilize one of the following methods suggested by commenters to disaggregate their CAF BLS between competitive and non-competitive areas. Providing carriers options will enable each carrier the flexibility to determine which approach best reflects the unique characteristics of their service territory. First, carriers may choose to disaggregate their CAF BLS based on the relative density of competitive and non-competitive areas. Second, carriers may choose to disaggregate their CAF BLS based on the ratio of competitive to non-competitive square miles in a study area, as proposed by Hargray. Third, carriers may choose to disaggregate their CAF BLS based on the ratio of A-CAM calculated for competitive areas compared to A-CAM support for the study area. The Commission outlines each of these disaggregation mechanisms below.

115. Consistent with the approach previously taken by the Commission for disaggregation of support, total support in a study area shall not exceed the support that otherwise would be available in the study area absent disaggregation. Similar to the former disaggregation rule, the Commission may, on its own motion, or in response to a petition from an interested party, examine the results of any one of the adopted disaggregation methods to ensure that it fulfills the Commission's intended objectives.

116. Carriers may choose to disaggregate their CAF BLS based on a methodology using the density of competitive and non-competitive areas, as proposed by NTCA/USTelecom. In particular, this

method allocates the revenue requirement between competitive and non-competitive areas, based on the relative density of competitive and non-competitive areas. As explained by NTCA/USTelecom, “[t]he ratio of the calculated non-competitive area’s revenue requirement to the sum of the calculated competitive and non-competitive revenue requirements is applied to the study area’s actual revenue requirements to ensure the total actual revenue requirement is equal to the sum of the competitive and non-competitive areas’ revenue requirements.”

117. The allocation between competitive and non-competitive areas is achieved by calculating a separate cost per loop for competitive and non-competitive areas based on the differing densities of the competitive and non-competitive areas. To calculate the disaggregated revenue requirements using these costs per loop, each cost per loop is multiplied by the number of loops in the corresponding (i.e. competitive or non-competitive) area. The number of loops in each area is calculated by multiplying the total number of loops by the density ratio for the study area. Although NTCA/USTelecom proposed that density for each area be calculated based on the sum of residential and business locations, the Commission is unaware of a publicly available source for business location data. Therefore, consistent with the approach taken for other rule changes adopted in this order that rely on density calculations, the Commission will use U.S. Census housing unit data for the density calculations required for this disaggregation method.

118. Carriers may also may choose to disaggregate their CAF BLS using a ratio of competitive to non-competitive square miles in a study area, as proposed by Hargray. Lower-cost areas are generally lower cost because of the presence of a dense cluster of consumers, which causes the cost per loop to be lower. Hargray submitted analysis into the record showing how support is reduced in a non-linear manner based on the rate of decline that would be expected if it were possible to specifically capture the loops and costs associated with non-competitive areas. As competitive overlap in a study area increases, utilizing this method CAF BLS would be reduced in a non-linear manner that accelerates as competitive overlap reaches 100 percent. In particular, under this disaggregation method, support would be reduced using the following schedule:

<b>Competitive Ratio</b>	<b>Reduction Ratio</b>
0%-20%	3.3%
30%	6.7%
35%	10.0%
40%	13.3%
45%	16.7%
50%	20.0%
55%	25.0%
60%	30.0%
65%	35.0%
70%	40.0%
75%	45.0%
80%	50.0%
85%	62.5%
90%	75.0%
95%	87.5%
100%	100%

119. By utilizing this mechanism, carriers would not be required to undertake steps to ensure the accuracy of location data or undertake a census block by census block determination of density. Therefore, by selecting this mechanism, carriers will enjoy relative ease of administration.

120. As a third option, the Commission will permit carriers subject to a reduction in support for competitive overlap to elect to utilize an allocation derived from the A-CAM, as suggested by NTCA. In this Order, the Commission adopts a forward-looking cost model that has been modified for use to determine support amounts for rate-of-return carriers that voluntarily elect to receive universal service

support. As the Commission explained, the A-CAM contains a support module, which calculates support on a per-location basis based on its calculation of the costs to serve the locations in every census block. For purposes of the voluntary offer of model-based support, support is only calculated for blocks that are not served by an unsubsidized competitor. The support module can be adjusted, however, to calculate support for the blocks that are competitively served, as well. Thus, support can be divided at the study area level between competitive and non-competitive census blocks. This ratio can be applied to CAF-BLS support to disaggregate support for competitive areas. The Commission notes that competitively served census blocks are likely to be the lower cost, more densely populated portions of the study area, in many instances where the model calculates little or even no support. In such cases, a carrier electing this method would see little to no support reduction using the A-CAM allocator, because the model provides support only for the higher cost areas.

121. The Commission agrees with commenters that support reductions associated with competitive areas should be phased in. As suggested by USTelecom and NTCA, the Commission adopts the following transition for reductions in CAF BLS in areas that are deemed to be competitively served: where the reduction of CAF BLS from competitive census block(s) represents less than 25 percent of the total CAF BLS support the carrier would have received in the study area in the absence of this rule, disaggregated support associated with the competitive census blocks will be reduced 33 percent in the first year, 66 percent in the second year, with that support associated with the competitive census blocks fully phased-out by the beginning of the third year. Where the reduction of CAF BLS from competitive census blocks represents more than 25 percent of the total CAF BLS support the carrier would have received in the study area in the absence of this rule, disaggregated support associated with the competitive census blocks will be reduced 17 percent in the first year, 34 percent in the second year, 51 percent in the third year, 68 percent in the fourth year, 85 percent in the fifth year, and fully phased-out by the beginning of the sixth year. The Commission also emphasizes that carriers affected by implementation of this rule are free to seek a waiver of support reductions under our existing precedent.

## 5. Budgetary Controls

122. The Commission previously adopted an overall budget of \$4.5 billion for the high-cost program, and a budget within that amount of \$2 billion per year for high-cost support for rate-of-return carriers. It did not, however, adopt a method for enforcing the budget for rate-of-return carriers. The Commission now adopts a self-effectuating mechanism for controlling total support distributed pursuant to HCLS and CAF BLS to stay within the budget for rate-of-return carriers.

123. The components of the high-cost program other than those for rate-of-return carriers are structured in a fashion that ensures each stays within its respective portion of the \$4.5 billion budget. Because ICLS and CAF ICC are not capped, there is no mechanism today to keep disbursements of high-cost funds to rate-of-return carriers within that \$2 billion budget. Indeed, NECA forecasts that over the next several years, absent any further reforms, total high-cost support (that is, the sum of HCLS, ICLS, and CAF ICC) for the rate-of-return industry will exceed the \$2 billion budget. It therefore is imperative that the Commission takes further steps now to ensure the budget is not exceeded, in the event growth in CAF BLS were to cause total rate-of-return support to exceed the defined budget. Adopting an overall budget control mechanism will provide a predictable and reliable method in the event that demand exceeds the available budget. The Commission notes, of course, that the budget control will only be implemented in the event total support is forecasted to exceed the budget in a given year.

124. In implementing measures to stay with the previously adopted budget, the Commission notes that the Tenth Circuit has affirmed the Commission's decision to set the rate-of-return budget at \$2.0 billion. The court found reasonable the Commission's determination "that budgetary sufficiency for . . . rate-of-return carriers could be achieved through a combination of measures, including but not limited to: (1) maintaining current USF funding levels while reducing or eliminating waste and inefficiencies that existed in the prior USF funding scheme; (2) affording carriers the authority to determine which requests for broadband service are reasonable; (3) allowing carriers, when necessary, to use the waiver process; and (4) conducting a budgetary review by the end of six years." In this Order, the Commission retains each of these measures to safeguard the sufficiency of the budget. Though some parties have suggested in

general terms that the budget should be increased, they have not provided the type of detailed information about why the overall budget is insufficient for the Commission to meet its goal of achieving universal service, nor have they presented individualized circumstances necessary to evaluate their claims. As discussed below, any carrier may seek waiver if it is necessary and in the public interest to ensure that consumers in the area continue to receive service.

125. Budget Amount. As noted above, the Commission has set a budget for rate-of-return support of \$2 billion per year, but only one of the existing legacy high-cost mechanisms is subject to a defined cap. To calculate the amount of support that will be available for disbursement under HCLS and CAF BLS, the Universal Service Administrator will first determine total demand from rate-of-return carriers (both those that elected model-based support and those that remain on the reformed legacy support mechanisms). Then, USAC will deduct CAF-ICC support for rate-of-return carriers (not including affiliates of price cap carriers) as specified under Commission's rules. Then, during the ten-year term of CAF-ACAM support, the Administrator will further deduct the amount of model-based support disbursements to those rate-of-return carriers choosing model-based support and transition payments, as applicable. The additional support provided to facilitate the voluntary path to the model is temporary, and after the end of the ten-year term, the budget control mechanism will apply to all rate-of-return carriers. The amount remaining will be the total support available to be disbursed under HCLS and CAF BLS. This amount will first be calculated as of July 2016, and will be recalculated on an annual basis to reflect changes in the CAF-ICC amounts paid to carriers.

126. Budget Control Mechanism. The budget control mechanism the Commission adopts is a variation on the NTCA budget control proposal that NTCA suggested should be applied solely to its DCS broadband-only mechanism. In essence, this proposal represents a compromise between carriers with relatively small numbers of lines but with very high costs and carriers with relatively more lines but with only moderately high costs. The Commission finds that it strikes a fair balance among differently-situated carriers.

127. Our budget control mechanism, as described in detail below, will be applied to forecasted

disbursements each quarter. For this purpose, forecasted disbursements include payments made for HCLS, payments for CAF BLS based on forecasted data for current period, and true-ups associated with prior years but being disbursed during the current period. There will be no retroactive application of the budget control mechanism.

128. First, a target amount is identified for each mechanism – HCLS and CAF BLS – so that in the aggregate disbursements for the mechanisms equal the budgeted amount for rate-of-return carriers. This targeted amount is calculated by multiplying the forecasted disbursements for each mechanism by the ratio of the budgeted amount to the total calculated support for the mechanisms. In this case, disbursements include CAF BLS provided on a projected basis, as well as true ups of that mechanism that apply to prior periods. This target amount will be calculated for each mechanism once per year prior to the annual filing of the tariffs.

129. The reduction of support under each mechanism will be split between a per-line reduction and a pro rata reduction applied to each study area. The per-line reduction will be calculated by dividing one half the difference between the calculated support and the target amount for each mechanism by the total number of eligible loops in the mechanism. Because some study areas may have per-line support amounts that are less than the per-line reduction, the per-line reductions as applied may not precisely equal one-half the difference between the calculated support and the target amount. In that case, the remaining reductions will be achieved through the pro-rata reduction. The pro rata reduction will then be applied as necessary to achieve the target amount. For CAF-BLS, the per-line and pro rata reductions will be calculated once per year, prior to the annual filing of tariffs. For HCLS, the per-line and pro rata reductions will be calculated quarterly, using the most recently announced target amount.

130. HCLS Cap. As the Commission has done previously when carriers have lost their eligibility for HCLS due to their status as affiliates of price-cap carriers, the Commission directs NECA to rebase the cap on HCLS to reflect the election of model-based support by HCLS-eligible rate-of-return carriers. In the first annual HCLS filing following the election of model-based support, NECA shall calculate the amount of HCLS that those carriers would have received in the absence of their election,

subtract that amount from the HCLS cap, then recalculate HCLS for the remaining carriers using the rebased amount.

131. Attribution of CAF BLS to Common Line and Consumer Broadband Loop Categories. To permit carriers to submit tariffs that provide a reasonable opportunity to meet their revenue requirements, it is necessary to attribute the CAF BLS that a carrier receives, after any reductions due to the budgetary constraint, to various cost categories. Accordingly, a carrier will first apply the CAF BLS it receives to ensure that its interstate common line and consumer broadband revenue requirements are being met for the periods currently being trued up. For example, from July 1, 2019, to June 30, 2020, true-ups will be made with respect to the 2017 calendar year, and CAF BLS disbursements will first be attributed to the extent necessary to ensure their revenues meet their revenue requirements for 2017. Next, CAF BLS will be applied to meet the carrier's forecasted interstate common line revenue requirement for the current tariff year. This assignment of support plus the revenues from end-user charges will meet the carrier's interstate common line revenue requirement. A carrier will then apply the remainder of its CAF BLS to the forecasted revenue requirement for the new consumer broadband-only loop category during the current tariff year. Any remaining unmet consumer broadband loop revenue requirement will be met through the consumer broadband loop rate. This process will permit, in some cases, consumer broadband-only loop rates to rise above \$42. The Commission notes that \$42 is well below the reasonably comparable rate for retail broadband service of \$77.81. FCC, Reasonable Comparability Benchmark Calculator, <https://www.fcc.gov/encyclopedia/reasonable-comparability-benchmark-calculator> (last visited Mar.4, 2016). On the whole, our actions in this Order will significantly reduce the retail rates paid by broadband-only subscribers, improving the reasonable comparability of rates. The Commission will, however, continue to monitor consumer broadband-only rates to ensure that our policies support reasonable comparability. On the whole, this process targets the budgetary constraint to the broadband-only component of the CAF-BLS mechanism, similar to NTCA's proposal to target the budgetary constraint to its broadband-only DCS mechanism.

## 6. Broadband Deployment Obligations

132. In this section, the Commission takes steps to promote “accountability from companies receiving support to ensure that public investments are used wisely to deliver intended results.” Specifically, the Commission adopts specific, defined deployment obligations that are a condition of the receipt of high-cost funding for those carriers continuing to receive support based on embedded costs. These measures will help ensure that “[c]onsumers in all regions of the Nation...have access to telecommunications and information services...that are reasonably comparable to those services provided in urban areas.” The Commission notes that USTelecom and NTCA recognize that defined buildout obligations are “essential to a broadband reform effort.”

133. Discussion. In this section, to ensure that the Commission makes progress towards achievement of universal service, consistent with the statute, they adopt defined performance and deployment obligations for rate-of-return carriers. The Commission’s goal is to utilize universal service funds to extend broadband to high-cost and rural areas where the marketplace alone does not currently provide a minimum level of broadband connectivity, and “to distribute universal service funds as efficiently and effectively as possible.” As noted above, in the USF/ICC Transformation Order, the Commission built upon the existing reasonable request standard, adopted a requirement to report unfulfilled service requests, and required carriers to develop a five-year plan to ensure that consumers in hard-to-serve areas have sufficient access to broadband, while also ensuring universal service support is utilized as effectively as possible. Through the adoption of rules to transform ICLS into the CAF-BLS mechanism, the Commission now builds on the foundation the Commission established in the USF/ICC Transformation Order to distribute support equitably and efficiently and advance the Commission’s longstanding objective of closing the rural-rural divide.

134. The Commission concludes that it now is time to establish defined deployment obligations for every carrier to ensure it has a framework to achieve our goal of universal service. As noted above, ETCs are currently required to “describe with specificity proposed improvements or upgrades” to their network throughout their service area in their five-year plans.” The Commission did

not specify specific numerical targets for those five-year plans, however, which has hampered our ability to judge whether carriers are in fact taking reasonable steps to extend broadband service. The Commission notes that although many rate-of-return carriers have aggressively deployed broadband service within their study areas, that progress has not been evenly distributed. Indeed, while some carriers have deployed 10/1 Mbps service to 99 -100 percent of the census blocks within their study areas, other carriers have not deployed to any.

135. Given the lack of any deployment by some providers and extremely low levels of deployment by others, the Commission concludes that some concrete standards for deployment are necessary to achieve the Commission's goal of extending broadband to those areas of the country where it is lacking. Indeed, the Commission has seen little to no progress in deployment since the USF/ICC Transformation Order for some areas, and there is no evidence that consumers in those areas will receive access to broadband absent a more objective, measurable requirement to do so.

136. To ensure that universal service support is utilized as effectively as possible in furtherance of the Commission's goal to achieve universal service, the five-year plan must operate as a meaningful tool for Commission oversight and possess quantifiable objective goals that can be easily measured and monitored. In this Order, the Commission has replaced ICLS with Broadband Loop Support so that all rate-of-return carriers can receive support for broadband-only lines. The Commission is eager to see that this support results in more widespread deployment. Moreover, in this Order, the Commission sets allowances for capital expenses, which will result in a larger budget for carriers whose deployment is less than the national average. However, that reform, by itself, does not guarantee that a carrier will make the investments needed to connect unserved consumers. Accordingly, in conjunction with our adoption of the updated CAF-BLS mechanism and capital expense allowances, the Commission adopts refinements to the current five-year plan requirements designed to increase accountability and ensure the extension of broadband to those areas of the country where it is lacking. In particular, the Commission adopts a specific methodology to determine each carrier's deployment obligation over a defined five-year period, which will be used to monitor carrier performance.

137. Methodology for Establishing Deployment Obligations. In this section the Commission describes the specific methodology used to determine each carrier's deployment location obligation over a defined five-year period. The deployment obligation will be based on the carrier's forecasted CAF BLS, and a cost per location metric, using one of two methods, as suggested by commenters. To enable each carrier the flexibility to determine which approach best reflects the unique characteristics of their service territory, a carrier may choose to either have its deployment obligation determined based on (1) the average cost of providing 10/1 Mbps service, based on the actual costs of carriers with similar density that have widely deployed 10/1 service, or (2) the A-CAM's calculation of the cost of providing 10/1 Mbps service in the unserved census blocks in the carrier's study area. Carriers will be required to notify USAC which method they elect. USAC will perform the mathematical calculations and provide to the Bureau a schedule of broadband obligations for each carrier, which then will be published in a public notice. The Commission describes more fully each of these methods below.

138. Under the first step in this methodology, the Commission will develop a five-year forecast of the total CAF-BLS support for each rate-of-return carrier, which will include support for stand-alone broadband loops. The Commission directs NECA to prepare forecasts utilizing these assumptions in consultation with the Bureau and submit them to USAC within 60 days of the effective date of this Order. USAC is directed to validate any calculations submitted by NECA to ensure they are accurate and reflect the specified assumptions. The Commission agrees with commenters that knowing the level of anticipated support is helpful when developing any associated deployment obligations. Therefore, the Commission is confident that basing the new deployment obligation on a support forecast will give carriers the relative certainty they desire in their support going forward, allowing them to plan new investment. The Commission notes that if a carrier's CAF BLS is subsequently reduced based on the implementation of competitive overlap rule adopted above, USAC will then recalculate that carrier's deployment obligation based on a revised forecast of that carrier's CAF BLS. Carriers cannot use locations in areas determined to be competitive based on the competitive overlap determination to meet their deployment obligation.

139. Each rate-of-return carrier that continues to receive support based on the reformed legacy mechanisms will be required to target a defined percentage of its five-year forecasted CAF-BLS support to the deployment of broadband service where it is currently lacking. The percentage of support will be determined on a carrier-by-carrier basis for a five-year period. Specifically, consistent with the framework suggested by the rural associations, rate-of-return carriers with less than 20 percent deployment of 10/1 Mbps broadband service in their entire study area, based on June 2015 FCC Form 477 data, will be required to utilize 35 percent of their five-year forecasted CAF-BLS support specifically for the deployment of 10/1 Mbps broadband service where it is currently lacking. Rate-of-return carriers with more than 20 percent or greater but less than 40 percent deployment of 10/1 Mbps broadband service in their entire study areas, will be required to utilize 25 percent of their five-year forecasted CAF-BLS support specifically for the deployment of broadband service where it is currently lacking. Rate-of-return carriers with 40 percent or greater but less than 80 percent deployment of 10/1 Mbps broadband service in their entire study areas, will be required to utilize 20 percent of their five-year forecasted CAF-BLS support specifically for the deployment of broadband service where it is currently lacking.

140. Deployment obligations will then be determined by dividing the dollar amount of the targeted CAF BLS by a cost-per-location figure. First, the Bureau will prepare a list of all rate-of-return carriers with at least 95 percent deployment of 10/1 Mbps broadband service within their study areas, based on the most recent publicly available FCC Form 477 data. The Commission believes it is reasonable to assume that if a rate-of-return carrier is nearly fully deployed with 10/1 Mbps broadband service, the carrier has recently upgraded its network and its current cost per loop is a reasonably good proxy for the cost per line associated with extending 10/1 Mbps broadband. The Bureau will sort the carriers into a number of groups based on the density of housing units per square mile, utilizing publicly available U.S. Census data. Any carriers subject to the current \$250 per line per month cap and the newly adopted opex limits will be excluded from the analysis. The Bureau also may exclude any carrier whose costs appear to be an outlier within a given density grouping. Then, USAC will determine the weighted average cost per loop for the carriers that are 95 percent or greater deployed for each density grouping,

based on NECA cost data. Carriers with 95 percent or greater deployment of 10/1 Mbps broadband are likely to have deployed broadband relatively recently, so the average should be generally reflective of the cost that carriers have incurred to upgrade their networks. The Commission finds that this process is reasonable because a carrier's weighted average cost per loop is based on its particular density grouping, thus taking into account costs for similarly-situated carriers. USAC also will determine the weighted average of the cost per loop for carriers in the same density band with a similar level of deployment, and then will increase that figure by 150 percent. This is similar to the approach advocated by NTCA and USTelecom, who suggested that the Commission use a figure that is "at least 150 percent of the average cost per loop" of those carriers with comparable density and deployment. It is reasonable to assume that many of the locations left unserved will have costs higher than the current average cost per loop, which by definition averages the lowest cost and the higher cost locations. Given that the carriers subject to the defined deployment are those that have deployed 10/1 Mbps broadband to less than 80% of their locations, it also is reasonable to assume that they would choose to meet their deployment obligations by extending service to their least costly unserved locations, and not the most expensive unserved locations. Therefore, the Commission concludes that a 150 percent increase above the weighted average cost per loop of companies with similar density and deployment levels is a reasonable approach that takes into account that costs will likely higher when carriers extend broadband into unserved areas.

141. If the 150 percent of the weighted average of companies with similar density and deployment is greater than the figure derived from companies of similar density that have deployed to 95 percent or more of locations, that larger figure will be the cost per location metric used to size the obligation to deploy 10/1 Mbps broadband service. USAC then will divide each carrier's specific five-year forecasted CAF-BLS support amount by the specific embedded cost per location figure. The quotient of this calculation will result in the exact number of locations a carrier electing this option is required to deploy 10/1 Mbps broadband service to pursuant to its five-year plan.

142. As an alternative to the approach outlined above, carriers may elect to have their deployment obligations determined based on the cost per loop for that carrier as reflected in the adopted

version of the A-CAM, as suggested by NTCA and USTelecom. For this purpose, the relevant figure will be the calculated cost for those census blocks that are unserved with 10/1 Mbps, using the cost module. USAC will divide each carrier's specific five-year forecasted CAF-BLS support amount by the A-CAM calculated, carrier specific, average cost per loop for unserved areas. The quotient of this calculation will result in the exact number of locations a carrier electing this option is required to deploy 10/1 Mbps broadband service to pursuant to its five-year plan.

143. Deployment Requirements. In this section, the Commission discusses in more detail the specific obligations of rate-of-return carriers subject to the refined five-year plan requirements. The Commission recognizes that certain locations in rate-of-return areas may be very costly to serve, and requiring buildout to these locations could place high demands on both rate-of-return carriers and consumers across the United States who ultimately pay for USF. That is why the Commission concludes – much like the Commission did in the April 2014 Connect America Order, 79 FR 39164, July 9, 2014, – that it will not require deployment using terrestrial wireline technology for any rate-of-return carrier in any census block if doing so would result in total support per line in the study area to exceed the \$250 per-line per-month cap. The Commission also notes that, pursuant to the capital budget allowance they adopt, rate-of-return carriers may not exceed \$10,000 per location/per project when deploying broadband service utilizing terrestrial wireline technology.

144. The Commission concludes that rate-of-return carriers with 80 percent or greater deployment of 10/1 Mbps broadband service in their entire study areas, as determined by the Bureau based on June 2015 FCC Form 477 data, will not have specific buildout obligations as a condition of receiving CAF-BLS support. However, those carriers must continue to deploy 10/1 Mbps or better broadband service where cost-effective and utilize alternative technologies where terrestrial wireline infrastructure is too costly, and report, as part of their annual Form 481 filing, progress on the number of locations where 10/1 Mbps or better broadband service have been deployed within their study area in the prior calendar year. The Commission emphasizes that any CAF-BLS funding earmarked for the purpose of extending 10/1 Mbps service to census blocks lacking such service may not be used to improve speeds

for those locations to which 10/1 Mbps service has already been deployed. The Commission will continue to monitor the deployment progress of these carriers: they may revisit this framework in the future if such carriers do not continue to make reasonable progress on extending broadband.

145. The Commission concludes that carriers subject to a defined five-year deployment obligation may choose to meet their obligation at any time during the five-year period. For example, a carrier can evenly space out construction to targeted locations on an annual basis or complete all of its required deployment within a single year. However, should any carrier subject to a defined five-year deployment obligation fail to complete the deployment within the stipulated five-year period, the carrier is potentially subject to reductions in support pursuant to section 54.320(c) of the Commission's rules, to be determined on a case-by-case basis. In situations where the carrier makes no progress towards meeting its defined five-year deployment obligation, and fails to establish extenuating circumstances, the Commission reserves the right to include such census blocks in an upcoming auction.

146. The Commission recognizes that even after the conclusion of the initial five-year period, additional efforts will be necessary "to encourage continued investment in broadband networks throughout rural American to ensure that all consumers have access to reasonably comparable services at reasonably comparable rates." Therefore, the Commission concludes that carriers with less than 80 percent deployment of broadband service meeting then-current standards in their study areas will be required to utilize a specified percentage of their five-year forecasted CAF BLS to deploy broadband service meeting the Commission's standards where it is lacking in subsequent five-year periods. The same methodology will be used, with USAC updating the average cost per loop amounts, based on the then-current NECA cost data, and the Bureau updating the density groupings and percentage of deployment figures, as appropriate.

147. The Commission concludes that the approach outlined above improves on the proposal initially submitted by NTCA, USTelecom, and WTA that rate-of-return carriers in receipt of BUSS support utilize at least 10 percent of their support "toward the goal of delivering broadband at the then-current 706 broadband speed to '4/1[Mbps] Unserved Locations.'" The associations' earlier proposal

failed to include any quantifiable deployment objectives, making it an ineffective tool for Commission oversight. Moreover, the Associations' proposal placed too much emphasis on achieving the deployment of advanced telecommunications capability, rather than the standards that the Commission has established as its minimum expectation for universal service. The Commission notes that USTelecom and NTCA more recently indicated their support for the framework adopted in this Order. To ensure that universal service support is used as effectively as possible to close the rural-rural divide, the Commission must be able to measure and monitor the deployment objectives outlined in a carrier's five-year plan. As noted above, deployment has not been consistent across all rural areas. Therefore, it is critical that the Commission have a method to evaluate progress towards meeting the established minimum 10/1 Mbps standard for high-cost support in each study area and determine if remedial action is warranted.

148. On an ongoing basis, the Commission will assess broadband deployment progress for all rate-of-return carriers based on carriers' annual reporting on the progress of their broadband deployment, and make adjustments, where warranted.

149. Reasonable Request Standard. In addition to defined obligations to extend service to a subset of locations within a five-year period, rate-of-return carriers remain subject to the reasonable request standard for their remaining locations. Rate-of-return carriers are required to demonstrate in an audit or other inquiry that they have a documented process for evaluating requests for service under the reasonable request standard and produce the methodology for determining where upgrades are reasonable. Carriers that make no progress in extending broadband to locations unserved with 10/1 Mbps broadband over an extended period of time should be prepared to explain why that is the case.

150. The Commission also takes further action to implement the existing reasonable request standard to ensure that consumers in remote areas are served. The Commission previously sought detailed comment on implementation of the Remote Areas Fund, including the option of using a competitive process to award support for such areas. Carriers will be invited later this year to identify those census blocks where they do not anticipate being able to deploy service under the existing reasonable request standard (i.e. where it is unreasonable to extend broadband meeting the Commission's

current requirements) for inclusion in the next Commission auction. The Commission directs the Bureau to issue a public notice setting a deadline for identifying such census blocks in advance of the timeframe for finalizing the list of eligible areas that will be subject to auction.

151. The Commission notes that should a carrier choose to place census blocks in the next Commission auction and another entity is authorized to receive support for those census blocks to provide voice and broadband service subsequent to the auction, the incumbent will not be subject to the reasonable request standard and no longer will receive support for those areas.

## **7. Impact of These Reforms**

152. The adoption of the voluntary path to the model, coupled with our update to the existing ICLS mechanism to provide support for broadband-only loops, should be beneficial to carriers that are high-cost, but no longer receive HCLS support due to the so-called “cliff effect.” The Commission notes that the revenue benchmark they set for broadband-only loops is lower than the effective benchmark for HCLS, which only provides support for carriers with an average loop cost of at least 115 percent of the frozen NACPL. Because the NACPL is frozen at \$647.42, a carrier only receives HCLS if its average cost per loop on an annual basis is higher than \$744.53, or \$62.04 per month. Thus, our reformed CAF-BLS mechanism will provide cost recovery for broadband-only loops for many carriers that no longer are eligible for HCLS support. This is one of the reasons why the Commission concludes that over the long run, CAF BLS will be more sustainable and equitable than HCLS and the former ICLS, supporting new broadband deployment to areas where providers have been unable to build absent some subsidy.

153. The Commission will monitor the progress in broadband deployment under the strengthened requirements for broadband deployment and may take further action in the future should it appear that despite these reforms, some high-cost areas remain unserved. The Commission solicits input from all interested parties in the concurrently adopted FNPRM as to whether there are other changes they could make to our high-cost program, working within the defined budget, that would create additional incentives to deploy broadband for companies in areas where end user revenues alone are insufficient to make a business case to deploy broadband.

154. In our predictive judgment, the mechanisms that the Commission adopts today to keep disbursements within the previously adopted budget will provide rate-of-return carriers with support that is sufficient to meet the Commission’s universal service goals. If any carrier believes that the support it receives is insufficient, it may seek a waiver of our rules. As the Commission noted in the USF/ICC Transformation Order, “any carrier negatively affected by the universal service reforms . . . [may] file a petition for waiver that clearly demonstrates that good cause exists for exempting the carrier from some or all of those reforms, and that waiver is necessary and in the public interest to ensure that consumers in the area continue to receive voice service.” The Commission stated that “[w]e envision granting relief only in those circumstances in which the petitioner can demonstrate that the reduction in existing high-cost support would put consumers at risk of losing voice services, with no alternative terrestrial providers available to provide voice telephony service.” It expressly noted that parties requesting such a waiver would be subject to “a process comparable to a total earnings review.” The Commission indicated that it did not anticipate granting waiver requests routinely or for “undefined duration[s]” and provided guidance on the types of information that would be relevant for such requests. In the Fifth Order on Reconsideration, 78 FR 3837, January 17, 2013, the Commission further clarified that “the Commission envisions granting relief to incumbent telephone companies only in those circumstances in which the petitioner can demonstrate that consumers served by such carriers face a significant risk of losing access to a broadband-capable network that provides both voice as well as broadband today, at reasonably comparable rates, in areas where there are no alternative providers of voice or broadband.” The Commission notes that the Tenth Circuit upheld the Commission’s decision to set the high-cost universal service budget for rate-of-return carriers at \$2.0 billion, and endorsed the use of the waiver process as a means to address any special circumstances when the application of the budget may result support that is insufficient for a carrier to meet its universal service obligations. The Commission further notes that to the extent parties seek a waiver on the ground that support is insufficient, it may request additional documentation pursuant to section 220(c) of the Act, to ensure that it has a full and complete basis for decision.

155. Finally, the Commission notes that the promotion of universal service remains a federal-state partnership. The Commission expects and encourage states to maintain their own universal service funds, or to establish them if they have not done so. The expansion of the existing ICLS mechanism to support broadband-only loops and the voluntary path to model-based support should not be viewed as eliminating the role of the states in advancing universal service; far from it. The deployment and maintenance of a modern voice and broadband-capable network in rural and high-cost areas across this nation is a massive undertaking, and the continued efforts of the states to help advance that objective is necessary to advance our shared goals.

## **8. Administrative Issues**

156. It is our desire to implement these revisions to our rules as soon as possible. The Commission recognizes, however, that implementing some of these changes will require new or revised information collections requiring approval from the Office of Management and Budget pursuant to the Paperwork Reduction Act. Further, some of the changes the Commission adopts must be coordinated with the Commission's existing cost accounting and tariffing rules. Given the administrative requirements the Commission has noted, it does not anticipate that full implementation of the new Connect America Fund Broadband Loop Support and related changes will occur prior to October 1, 2016. The Commission delegates authority to the Bureau to take all necessary administrative steps to implement the reforms adopted in this Order.

157. USAC Oversight. USAC, working with the Bureau, will take all actions necessary to implement these rule changes adopted in this Order. The Commission notes that USAC has a right to obtain – at any time and in unaltered format – all cost and revenue submissions and related information provided by carriers to NECA that is used to calculate payments under any high-cost support mechanism. The Commission expects USAC to implement processes to validate any calculations performed by NECA to ensure that accurate amounts are disbursed, consistent with our decisions.

158. Administrative Schedule – In general. The administration of the CAF-BLS mechanism will, as much as possible, follow the existing precedent of the ICLS mechanism. In order to facilitate the

operation of the CAF-BLS mechanism, the Commission eliminates the June 30 updates and revisions that had been permitted pursuant to ICLS. Accordingly, the Commission specifies the following schedule:

March 31	Carriers file with USAC projected cost and revenue data, including projected voice and broadband-only loops, necessary to calculate a provisional CAF-BLS amount for each carrier for the following July 1 to June 30 tariff year (ex. on March 31, 2017, carriers will file projected data for July 1, 2017, to June 30, 2018).
May 1	USAC files with the Commission in Docket No. xx-xxx provisional CAF-BLS amounts, having applied the budgetary control based on CAF BLS data filed on March 31, as well previously known HCLS data and CAF-BLS true-up information
June 16	Tariffs filed by this date may be deemed lawful for the following July 1 to June 30 tariff year (ex. on June 16, 2017, NECA files tariffs for July 1, 2017, to June 30, 2018, relying on May 1 CAF-BLS amounts)
July 1 to June 30	USAC disburses provisional CAF-BLS amounts to carriers (July 1, 2017 to June 30, 2018, in this example)
December 31	Carriers file actual cost and revenue data and line count data necessary to calculate final CAF-BLS for prior calendar year (ex. on December 31, 2018, carriers file data for January 1, 2017, to December 31, 2017).
July 1 to June 30	USAC disburses true-ups for final CAF-BLS amounts to carriers (ex. true-ups associated with calendar year 2017 disbursed from July 1, 2019, to June 30, 2020). To ensure a consistent effect on the budgetary constraint through the year, the Commission modifies the true-up process conducted under ICLS so that under CAF BLS such that true-ups are spread between July 1 to June 30 of each tariff year, rather than applying the true-ups to the third and fourth quarters of the

	calendar year, as is currently done.
--	--------------------------------------

**C. Pricing considerations**

159. In the following subsections, the Commission addresses cost allocation and tariff-related issues raised by adoption of the new CAF-ACAM and CAF-BLS mechanisms discussed above. The implementation of those support programs and the cost allocation and pricing issues addressed below will be coordinated so that the appropriate cost allocation and tariff revisions will occur when the new mechanisms become effective.

**1. Cost allocation issues**

160. Today, broadband-only loops are generally offered through interstate special access tariffs. The costs associated with those loops are allocated 100 percent to the interstate jurisdiction by the separations procedures in Part 36 and then to the special access category by subparts D and E of Part 69. Under this process, the interstate broadband-only loop costs are included in the special access revenue requirement upon which cost-based special access rates are determined. When the new high-cost support rules take effect, a carrier may receive support for a portion of its broadband-only loop costs. Unless an adjustment is made, a carrier could recover the costs associated with the broadband-only loop twice—once through the CAF-BLS mechanism and a second time through special access rates based on the existing special access revenue requirement.

161. To avoid this situation, the Commission amends Part 69 in two ways to implement the goal articulated in the April 2014 Connect America Fund FNPRM of ensuring that no double recovery occurs. First, the Commission creates a new service category known as the “Consumer Broadband-Only Loop” category for the broadband-only loop costs that are the subject of this Order. This new category in Part 69 will encompass the costs of the consumer broadband-only loop facilities that today are recovered through special access rates for the transmission associated with wireline broadband Internet access service. For purposes of this discussion, wireline broadband Internet access service refers to a mass-market retail service by wire that provides the capability to transmit data to and receive data from all or

substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This retail service offered by rate-of-return carriers or their affiliates is subject to the reasonable comparability benchmark. The wholesale input discussed in this Order – the transmission component used to provide the retail service – is subject to the Commission’s rate-of-return regulation, including the changes adopted herein, unless a carrier seeks to convert to price cap regulation. A carrier electing price cap regulation becomes subject to the rules governing price cap carrier rates and obligations, including the transition path and recovery rules applicable to price cap carrier switched access charges. See 47 CFR 51.907, 51.905. This category will be included along with the common line category in the new CAF-BLS mechanism.

162. Second, the Commission revises part 69 of our rules to reallocate costs to avoid double recovery. These revisions require a carrier to move the costs of consumer broadband-only loops from the special access category to the new Consumer Broadband-Only Loop category. Today, the facilities associated with the common line and the consumer broadband loop run between the end-user premises and the central office, and are often the same technology or share some common transmission capacity. Thus, it is reasonable to conclude that the costs associated with these two types of lines are very similar. The interstate Common Line revenue requirement includes 25 percent of the total unseparated loop costs, while the consumer broadband-only loops will include 100 percent of the total unseparated loop costs. For purposes of deriving the amount of consumer broadband loop expenses to be removed from the Special Access category. This does not revise any rule associated with calculating the actual common line investment and expenses. It is solely for the purpose of establishing the amount of consumer broadband-only loop investment and expenses to remove from the special access category, carriers will calculate common line investment and expenses using an interstate allocation of 100, rather than 25. The common line expenses produced by this calculation will then be divided by the number of voice and voice/data lines in the study area to derive the interstate common line expenses per line. The interstate common line expenses per line will be multiplied by the number of consumer broadband-only loops to derive the consumer broadband-only loop expenses to be removed from the special access

category. The Commission takes this approach because it includes the broadest definition of loop costs feasible based on our current cost accounting rules. These actions will segregate the broadband-only loop investment and expenses from other special access costs currently included in the special access category, and also preclude cross-subsidization. The Commission will oversee NECA's actions to ensure that these changes are implemented consistent with the Commission's intent.

## **2. Tariffing issues**

163. Assessment of end-user charges. Today, rate-of-return carriers assess SLCs on voice and voice/broadband lines. The SLCs are capped at the lower of cost or \$6.50 for residential and single-line business lines and \$9.20 for multiline business lines. Rate-of-return carriers will continue to offer voice and voice/broadband lines under the revised support mechanisms. Carriers will continue to be eligible to assess SLCs on end-user customers of voice and voice/broadband lines subject to the current rules. Carriers will also be permitted to assess an Access Recovery Charge (ARC) on any line that can be assessed a SLC, the same as today. Consistent with the existing rules, SLCs and ARCs may not be assessed on lines eligible to receive Lifeline support.

164. Currently, a rate-of-return carrier may offer broadband-only loops through its interstate special access tariff. The consumer broadband-only loop service is the telecommunications input to a wireline broadband Internet access service. When the revised rules adopted herein become effective, a rate-of-return carrier may tariff a consumer broadband-only loop charge for the consumer broadband-only loop service. Alternatively, a carrier may detariff such a charge. If the rate-of-return carrier chooses to detariff its wholesale consumer broadband-only loop offering, it no longer will be voluntarily offering the transmission as a service that is assessable for contributions purposes. As such, it would not have a contributions obligation for that service, similar to other carriers that previously chose not to offer a separate tariffed broadband transmission service. The carrier may not, however, tariff the charge to some customers, while detariffing it for others. Because that service is not rate regulated, no carrier should in any way represent or create the impression that the broadband-only loop charge is mandated by the Commission. This limitation is designed to preclude a carrier from using this flexibility to discriminate

among customers taking broadband-only services.

165. Consumer broadband-only loop charge for a carrier electing model-based support. A portion of the support a rate-of-return carrier electing model-based support receives will be to cover a portion of the costs of the consumer broadband-only loop. The broadband loop provides a connection between the end user's premises and the ISP—either an affiliated or nonaffiliated entity. The broadband-only loop is a wholesale input into the retail broadband service offered by the ISP. The cost of that loop is currently included in the Special Access category, but will be shifted to the new Consumer Broadband-Only Loop category by this Order. Support received under the model will not replace all the carrier's consumer broadband-only loop costs. Thus, the carrier may choose (but is not required) to develop a rate to recover the remainder of its costs to assess on either the end user or the ISP, depending on the pricing relationship established between the ISP and the consumer. Above, the Commission found that \$42 per month per line represented a reasonable revenue amount that could be expected to be recovered through such a charge for a broadband-only loop. The Commission will allow – but does not require – a rate-of-return carrier electing model-based support to assess a wholesale consumer broadband-only loop charge that does not exceed \$42 per line per month. If a carrier chooses to assess a tariffed wholesale consumer broadband-only loop charge, the revenues for that transmission service are subject to a contribution obligation. This rate cap allows a carrier the opportunity to recover its costs not covered by the model, while limiting the ability of a carrier to engage in a price squeeze against a non-affiliated ISP offering retail broadband service. Although the retail service provided to the end user customer is not constrained by this limitation such service is subject to the reasonable comparability benchmark.

166. Participation in the NECA common line pool and tariff by carriers electing model-based support. Some carriers that elect model-based support may currently participate in the NECA pooling and tariffing process for their common line offerings. Model-based support replaces the high-cost support (i.e. HCLS, ICLS) amounts a carrier would receive, as well as any CAF-BLS associated with consumer broadband-only loops it would have been eligible to receive if it had not elected model-based support. Carriers electing model-based support will be treated as if they had received their full support amounts

under traditional ratemaking procedures. As a result, the only revenue requirement remaining for the Common Line and Consumer Broadband-Only Loop categories are those amounts associated with end-user charges. For carriers electing model-based support, the Commission sees little benefit from pooling their common line or consumer broadband-only loop costs. In fact, it would likely increase the costs of administering the pooling process with no concurrent benefit for carriers. The Commission accordingly concludes that carriers electing model-based support will not be eligible to participate in the NECA common line pooling mechanism.

167. The Commission does find, however, that rate-of-return carriers electing model-based support could benefit from continued participation in the NECA tariffs. The Commission accordingly decides to preserve the option for carriers to use NECA to tariff these charges. The charges shall be capped at current levels for existing charges, and at \$42 for the consumer broadband-only loop charge. This approach allows the carriers electing model-based support to benefit from the administrative efficiencies associated with participating in the NECA tariff.

168. Ratemaking for carriers not electing model-based support. Each carrier that does not elect model-based support will have an interstate revenue requirement for its Consumer Broadband-Only Loop category, as determined pursuant to the procedures set forth in Part 69. The projected Consumer Broadband-Only Loop revenue requirement is then reduced by the projected amount of CAF-BLS attributed to that category in accordance with the procedures in Part 54 defining such amounts. The remaining projected revenue requirement is the basis for developing the rates the carrier may assess, based on projected loops. A carrier may not deaverage this rate within a study area.. NECA shall employ comparable procedures in its pooling process.

169. A carrier may tariff different pricing models for the loop service, but it must select one model for a study area. A carrier in the NECA pool that elects to detariff its consumer broadband-only loop service must remove all of its Consumer Broadband-Only Loop category revenue requirement from the pooling process. It will retain the support that would have been applied to the Consumer Broadband-Only Loop category revenue requirement if it had not detariffed its consumer broadband-only loop rates,

plus any revenue resulting from its detariffed rates.

#### **D. CAF-ICC Considerations**

170. Discussion. The Eligible Recovery mechanism adopted in the USF/ICC Transformation Order was a carefully balanced approach. The plan to provide support for certain broadband lines adopted here will alter the balance struck in the USF/ICC Transformation Order in two significant ways, and CAF ICC support could increase in a manner not contemplated. As discussed below, the Commission revises our recovery rules to account for the support changes adopted in this Order.

171. The first effect from providing support to consumer broadband-only loops is a likely migration of some end users from their current voice/broadband offerings to supported broadband-only lines due to increased affordability of these services. Although the Commission cannot predict the extent of this migration, such changes will reduce the number of ARC-eligible lines under the current rules and thus the amount of Eligible Recovery that the carrier can recover via ARC charges. As explained above, recovery from CAF ICC will be provided to the extent carriers Eligible Recovery exceeds their permitted ARCs. Thus, under the existing recovery rules, a migration of end users to consumer broadband-only loop service would upset the careful balancing of burdens as between end-user ARC charges and universal service support, i.e., CAF ICC. It is not our intent to alter significantly the balance struck in the USF/ICC Transformation Order. To insure that our actions today do not unintentionally increase CAF ICC support, the Commission requires that rate-of-return carriers impute an amount equal to the ARC charge they assess on voice/broadband lines to their supported consumer broadband-only lines. The projected demand for this imputation will be subject to the same type of true-up as are the ARCs assessed on voice/broadband lines.

172. The second effect that will occur from the adoption of support for consumer broadband-only loops is that, as voice/broadband lines are lost, a carrier's switched access revenue will go down. Absent Commission action, the recovery mechanism would produce a higher Eligible Recovery for the carrier and a higher CAF-ICC amount. Nevertheless, the likelihood exists that some of the facilities used to support the lost switched access services will be reused to provide a portion of the broadband-only

service. This is especially true with respect to transport and circuit equipment, although it could include other facilities as well. Thus, in some cases, the carrier would be receiving some special access revenue recovering the costs of facilities formerly used to provide switched access services. Such circumstances would result in double recovery under the rules adopted in the USF/ICC Transformation Order because the carrier would receive CAF ICC as well as special access revenues for the service being offered—either tariffed or detariffed. The Commission accordingly clarifies that a carrier must reflect any revenues recovered for use of the facilities previously used to provide the supported service as double recovery in its Tariff Review Plans filed with the Commission, which will reduce the amount of CAF ICC it will receive. This minimizes the effect today’s decision will have on the level of CAF-ICC support. The reporting of any double recovery will be covered by the certifications carriers must file with the Commission, state commissions, and USAC as part of their Tariff Review Plans.

#### **E. ETC Reporting Requirements**

173. In light of our experience in implementing our high-cost reporting requirements to date and our desire to respond to the recommendation of the Government Accountability Office to improve the accountability and transparency of high-cost funding, the Commission now makes several changes to our reporting rules. In this section, the Commission streamlines and revises rate-of-return ETCs’ annual reporting requirements to better align those requirements with our statutory and regulatory objectives. First, the Commission amends our rules to require rate-of-return ETCs to provide additional detail regarding their broadband deployment during each year, as suggested by several parties. Specifically, the Commission now requires all rate-of-return ETCs to provide location and speed information of newly served locations. The Commission also requires rate-of-return ETCs electing model-based support to provide information for the locations already served at the time of election. In conjunction with these changes, the Commission eliminates the requirement that rate-of-return ETCs file a five-year plan and annual progress reports on that plan. The net result of these two changes will be more targeted, useful information for the Commission, states, Tribal governments and the general public. Second, given the reporting rules the Commission adopts today for rate-of-return carriers, for administrative efficiency, they

make conforming changes to the reporting rules for carriers that elected Phase II model-based support (hereinafter “price cap carriers”). Third, the Commission directs USAC to publish in open, electronic formats all non-confidential information submitted by recipients of high-cost support. The Commission concludes that these changes ensure that our reporting requirements continue to be tailored appropriately to meet our statutory and regulatory objectives.

## **1. Discussion**

174. Broadband Reporting Requirements. The Commission now updates our annual reporting requirements for rate-of-return ETCs as a necessary component of our ongoing efforts to update the support mechanisms for such ETCs to reflect our dual objectives of supporting existing voice and broadband service, while extending broadband to those areas of the country where it is lacking. The Commission concludes that the public interest will be served by adopting broadband location reporting requirements for rate-of-return carriers similar to those they adopted for price cap carriers and authorized bidders in the rural broadband experiments. This targeted rule change is critical for the Commission to determine if universal service funds are being used for their intended purposes. As recommended by the Government Accountability Office, such data will enable the Commission and USAC to analyze the data provided by carriers and determine how high-cost support is being used to “improve broadband availability, service quality, and capacity at the smallest geographic area possible.”

175. Specifically, similar to the current requirements for price cap ETCs, the Commission adopts a rule requiring all rate-of-return ETCs, starting in 2017, and on a recurring basis thereafter, to submit to USAC the geocoded locations to which they have newly deployed broadband. These data will provide an objective metric showing the extent to which rate-of-return ETCs are using funds to advance as well as preserve universal service in rural areas, demonstrating the extent to which they are upgrading existing networks to connect rural consumers to broadband. USTelecom, NTCA, WTA and ITTA propose that rate-of-return carriers submit the number of locations that are newly served in the prior year, with both USTelecom and ITTA explicitly proposing that ETCs electing CAF-ACAM support submit geocodes for such locations. Rate-of-return ETCs will also be required to report the number of locations

at the minimum speeds required by our rules. The location and speed data will be used to determine compliance with the associated deployment obligations the Commission adopts today. The geocoded location information should reflect those locations that are broadband-enabled where the company is prepared to offer service meeting the Commission's minimum requirements for high-cost recipients subject to broadband public interest obligations, within ten business days.

176. The Commission expects ETCs to report the information on a rolling basis. A best practice would be to submit the information no later than 30 days after service is initially offered to locations in satisfaction of their deployment obligations, to avoid any potential issues with submitting large amounts of information at year end. The Commission concludes that the submission of information in near real-time as construction is completed will be beneficial to all carriers and particularly useful to smaller carriers. For instance, ETC technicians will be able to upload the location information as part of the routine process of updating its customer service availability database upon completion of construction or in conjunction with initiation of marketing efforts for the newly available service, instead of having to record the location and transferring all of that information to an annual report six to 18 months later. It should also minimize the strain on USAC's information technology systems to avoid a massive amount of bulk uploads centered on a single, annual deadline. The Commission notes that the amount of information to be uploaded at the end of the calendar year is likely to be relatively low, as December is not construction season in many locales. While rate-of-return ETCs will have until March 1 to file their location data for the prior calendar year, reporting on a rolling basis before then will allow filers to receive real-time validation from USAC's system prior to the deadline and thereby provide the opportunity to timely correct any errors or avoid delays due to system overload.

177. The Commission finds that the benefits in collecting this location-specific broadband deployment information outweigh any potential burdens from reporting this data, particularly because rate-of-return ETCs already collect location information for other purposes. Rate-of-return carriers presumably maintain records of addresses that are newly enabled with service, so that they can begin to market such service to those customers. Moreover, rate-of-return carriers already are required under our

existing rules to maintain records for assets placed in service indicating the description, location, date of placement, and the essential details of construction. Thus, both for marketing and regulatory purposes, rate-of-return carriers already are tracking where they extend fiber and install other facilities, and should be able to determine through commonly accepted engineering standards which locations should be able to receive service at specified speeds. The Commission directs the Bureau to work with USAC to develop a means of accepting alternative information in those instances where a postal code or other standardized means of geocoding is not readily available. Furthermore, the Commission delegates authority to the Bureau to act on individual requests for waiver of this requirement in those cases where the parties can demonstrate other unique circumstances that make compliance with the geocoding requirement for a subset of locations impracticable.

178. Similar to the regime adopted for the price cap carriers that elected Phase II model-based support, companies that elect model-based support will include in their total location count any locations that already have broadband meeting the Commission's minimum standards. While the Commission encourages carriers to submit geocoded location information for their existing broadband locations no later than the deadline for the 2017 reporting, they recognize the possibility that some smaller companies may not already have complete lists of geocoded locations for their existing broadband infrastructure that was deployed under the legacy rules. Accordingly, while carriers electing the A-CAM model support are strongly urged to report new construction on a rolling basis starting in 2017, the Commission will provide an additional year for them to file geocodes for pre-existing broadband-capable locations, with such information required to be submitted to USAC no later than March 1, 2019. Two years should be enough time for carriers to collect the necessary data on any pre-existing deployment, while providing the Commission and USAC the specific locations well in advance of the first interim deployment obligation with a defined target.

179. The Commission concludes that it is necessary to establish a standardized and automated system to collect the volume of location level data on carrier progress in meeting deployment obligations. Below, the Commission directs the Bureau to work with USAC to develop an online portal that will be

available for rate-of-return carriers to submit location information on a rolling basis throughout the year. The Commission directs USAC, working with the Bureau, to prepare a plan for the efficient collection, analysis and access to this location data. The plan should be provided to the Bureau within two months of release of this Order and address the use of automated reminders for year-end submission due dates, standardized data elements to the extent possible, and the time frame necessary to implement an online portal.

180. The Commission also establishes certifications to be filed with ETCs' location submission, to ensure ETCs' compliance with their public interest obligations. Each rate-of-return ETC electing CAF-ACAM support must certify that it met its 40 percent interim deployment obligation at the time it files its final location report for 2020, due no later than March 1, 2021, and file similar certifications annually thereafter. Rate-of-return ETCs remaining on embedded cost mechanisms must file a similar certification within 60 days of the deadline for meeting their defined deployment obligations, i.e. March 1, 2022 and March 1, 2027. The Bureau has delegated authority to adjust these deadlines as necessary to align the timing of the implementation of the various reforms. To ensure the uniform enforcement of ETCs' reporting requirements, rate-of-return ETCs that fail to file their geolocation data and associated deployment certifications due by March 1 of each year in a timely manner will be subject to the same penalties that currently apply to ETCs for failure to file the information required by section 54.313 on July 1 of each year.

181. In conjunction with adopting the location reporting requirements above to track rate-of-return ETCs' build-out progress, the Commission now eliminates the requirement for rate-of-return ETCs to file a service quality improvement plan. The purpose of the five-year plan and annual updates was to ensure that "ETCs [] use their support in a manner consistent with achieving the universal availability of voice and broadband." With the reforms adopted in this order, rate-of-return ETCs are now subject to detailed broadband buildout obligations, which provide a more defined yardstick by which to measure their progress towards the universal availability of voice and broadband service in their areas. The Commission therefore finds that it is unnecessary for rate-of-return ETCs to file a five-year service

quality improvement plan. Moreover, the Commission concludes that because there is no longer a requirement to file a service quality improvement plan, they also should eliminate the obligation in our rules for rate of return ETCs to file updates on that plan under our authority to eliminate rules that are no longer applicable. The Commission also modifies, on the same basis, other rules to remove references to the service quality improvement plan.

182. Once the Commission receives Paperwork Reduction Act approval for the revised requirement to report geocoded locations and the elimination of our progress reporting requirement, rate-of-return ETCs will no longer be required to file a progress report containing maps and a narrative explanation of “how much universal service support was received, and how it was used to improve service quality, coverage or capacity and an explanation regarding any network improvement targets that have not been met....at the wire center level or census block as appropriate.” The Commission concludes that the geocoded location lists that each recipient will be required to submit on an annual basis will provide the Commission with more precisely targeted information to monitor the recipients’ progress towards meeting their public interest obligations, and at that point there will no longer be a need for recipients to file annual progress reports.

183. Connect America Phase II Reporting Requirements. Because USAC will develop a unified reporting portal for geocoded location information, the Commission finds good cause to make conforming changes to the relevant reporting requirements for those price cap ETCs that accepted Phase II model-based support. The Commission finds good cause to change the timing of the submission of geocoded location information without notice and comment to promote administrative efficiency for both carriers and USAC. Instead of reporting such information in their annual report, due July 1 for the prior calendar year, the Commission concludes that it will serve the public interest for price cap carriers to report on deployment by a deadline that is close to the end of the calendar year, rather than six months later. This will enable USAC to perform validations of compliance with the interim and final deployment milestones more quickly than otherwise would be the case, and impose remedial measures as necessary. Moreover, this change will unify location reporting for all ETCs providing service to fixed locations,

minimizing administrative costs to USAC and simplifying monitoring of progress by the Commission, USAC, states, other stakeholders, and the public.

184. Specifically, upon the relevant Paperwork Reduction Act approvals, price cap ETCs will be required to submit the requisite information to USAC no later than March 1 of each year, for locations newly enabled in the prior year. Because these changes will not go into effect by the time the 2015 Form 481 is due on July 1, 2016, the form and content of that filing will remain unaffected. They will be free – and indeed, encouraged – to submit information on a rolling basis throughout the year, as soon as service is offered, so as to avoid filing all of their locations at the deadline. By filing locations in batches as construction is completed and service is offered, they will avoid any last minute problems with submitting large quantities of information and be able to receive confirmation prior to the deadline that information was received by USAC. As they do now, price cap carriers will continue to make annual certifications that they are meeting their public interest obligations, but will do so when submitting the information to USAC by this deadline, rather than in their annual reports. The Commission makes conforming edits to our rules by moving the certifications in section 54.313(e)(3)-(e)(6) to new section 54.316. In light of our unification of reporting obligations, the Commission deletes the section of our rules regarding price cap ETCs’ deployment obligations and certification of compliance (47 CFR 54.313(e)(2)(i), (e)(2)(iii), (e)(3)-(e)(6)), and the Commission moves price cap ETCs’ existing geocoding and certification obligations to the new section 54.316, which now contains all ETCs’ deployment and the majority of ETCs’ public interest certification obligations. Additionally, price cap ETCs’ geolocation data and associated deployment certifications will no longer be provided pursuant to the schedule in section 54.313. The penalties in section 54.313(j) for failure to timely file that information would not apply absent additional conforming modifications to our rules. Therefore, as is the case for rate-of-return ETCs, the penalties for price cap ETCs to fail to timely file geolocation data and associated deployment certifications will be located in new section 54.316(c).

185. Finally, for the reasons explained above for rate-of-return ETCs, the Commission eliminates the requirement for price cap ETCs to file a service quality improvement plan and to file

annual updates, as well as make conforming changes to our rules.

186. Improving Access to High-Cost Program Data. The Commission directs USAC to timely publish through electronic means all non-confidential high-cost data in open, standardized, electronic formats, consistent with the principles of the Office of Management and Budget's Open Data Policy. In 2014, the Commission directed USAC to publish non-confidential program information for the schools and libraries mechanism in an open and accessible format, and today's action extends that same directive to the high-cost program, which represented roughly 50 percent of the entire USF in 2015. USAC must provide the public with the ability to easily view and download non-confidential high-cost information, including non-confidential information collected on the Form 481 and the geocoded location information adopted above, for both individual carriers and in aggregated form. The Commission directs USAC to develop a map that will enable the public to visualize service availability as it expands over time.

187. The Commission directs the Bureau to work with USAC to put appropriate protections in place for ETCs to seek confidential treatment of limited subset of the information. Entities, such as states and Tribal governments, which already have access to confidentially filed information for ETCs' within their jurisdiction, will continue to have access to such information through the online database. The Commission finds that making such data publicly available will increase transparency and enable ETCs, the Commission and other stakeholders to assess ETCs' progress in deploying broadband throughout their networks as well as compliance with our rules. Once these updated systems are operational, the Commission anticipates that it would no longer require ETCs to submit duplicative information with the Commission through ECFS and with state commissions. Rather, all such information will be submitted to the Administrator, with federal and state regulators, and Tribal governments where applicable, having full access to such information. The Commission seeks comment on this proposal in the concurrently adopted FNPRM.

188. As ETCs comply with the new public interest and reporting requirements and broadband public interest obligations in this Order, the Commission will continue to monitor their behavior and performance. Based on that experience, the Commission may make additional modifications as necessary

to our reporting requirements.

**F. Rule Amendments**

189. The Commission takes this opportunity to make several non-substantive rule amendments. The Commission finds that notice and comment is unnecessary for rule changes that reflect prior Commission decisions to eliminate several support mechanisms that inadvertently were not reflected in the Code of Federal Regulations (CFR). Similarly, the Commission finds notice and comment is not necessary for rule amendments to ensure consistency in terminology and cross references across various rules, to correct inadvertent failures to make conforming changes when prior rule amendments occurred, and to delete references to rules governing past time periods that no longer are applicable.

190. First, the Commission removes section 54.301, Local switching support, from the CFR. The Commission eliminated local switching support (LSS) as a support mechanism in the USF/ICC Transformation Order, but did not remove the LSS rule at that time. Second, the Commission removes the first sentence of section 54.305(a), Sale or transfer of exchanges, as it pertains to prior time periods and refers to a rule, section 54.311, which no longer exists in the CFR. Third, the Commission modifies two provisions of section 54.313(a) requiring ETCs to submit a letter certifying that its pricing is in compliance with our rules. The Commission concludes that a requirement for an ETC to certify its compliance with a rule is substantially similar to the requirement to provide a certification letter and the current letter requirements may impose a burden without a material benefit. Fourth, the Commission corrects the language regarding the existing certification requirement in section 54.313(f)(1) to reflect the Commission's decision in the December 2014 Connect America Order to require rate-of-return carriers to offer at least 10/1 Mbps upon reasonable request. Fifth, the Commission deletes paragraph 54.313(e)(2)(i) and modify language in paragraph 54.313(f)(1)(iii) of our rules because the language is duplicative of language in other parts of section 54.313. Sixth, as discussed above, in light of our changes to our location reporting rules and our decision to no longer require ETCs to file service quality improvement plans, the Commission deletes references in our rules to the filing of progress reports for

those plans, delete our existing rule regarding price cap ETCs' obligation to report geocoded locations and the rule requiring certification of compliance with such ETCs' deployment obligations and move those requirements to new section 54.316. Seventh, the Commission deletes subpart J of Part 54; the Commission eliminated the Interstate Access Support (IAS) support mechanism for price cap carriers in the USF/ICC Transformation Order, but did not at that time delete the associated IAS rules from the CFR. Eighth, the Commission eliminates section 54.904, the ICLS certification requirement, to reflect the Commission's decision in the USF/ICC Transformation Order to eliminate that rule and instead impose annual reporting requirements in section 54.313. Ninth, the Commission amends section 54.707 Audit controls so that it reflects accurate cross references to rules that currently are in existence and applicable. The Commission renames the existing rule, section 54.707, as paragraph (a) and add new paragraphs (b) and (c) to reflect rules that were adopted by the Commission in the USF/ICC Transformation Order, but inadvertently not codified. Tenth, the Commission amends sections 69.104(n)(ii) and 69.415(a)-(c) to remove language that is no longer applicable. Eleventh, the Commission amends section 69.603(g), Association functions, to remove references to support mechanisms that no longer exist or functions that NECA no longer performs, and to update terminology to reflect terms now used in Part 54.

### **III. ORDER AND ORDER ON RECONSIDERATION**

191. As part of our modernization of the framework for rate-of-return support, the Commission also represcribes the currently authorized rate of return from 11.25 percent to 9.75 percent in all situations where a Commission-prescribed rate of return is used for incumbent LECs. The rate of return is a key input in a rate-of-return incumbent LEC's revenue requirement calculation, which is the basis for both its common line and special access rates and its universal service support. This action is a critical piece of our reform of the rate-of-return support mechanisms. A rate of return higher than necessary to attract capital to investment results in excessive profit for rate-of-return carriers and unreasonably high prices for consumers. It also inefficiently distorts carrier operations, resulting in waste in the sense that, but for these distortions, more services, including broadband services, would be provided at the same cost.

192. It is important that the Commission takes such comprehensive action to ensure the prescribed rate of return is commensurate with the investment risks incumbent LECs are undertaking today, such as broadband network investments, and at the same time reflects current market conditions. Our adoption today of self-effectuating measures to ensure that high-cost support remains within the budget established by the Commission in no way lessens the rationale for represcribing the authorized rate of return. Our adopted rate of return will provide rate-of-return carriers with economically efficient incentives to deploy broadband to meet the needs of their customers. An unnecessarily high rate of return inefficiently allocates funds away from carriers with relatively low capital to other expense ratios toward those with higher ratios. Moreover, an excessive rate of return inefficiently distorts individual rate-of-return carriers' investment and other decisions, reducing what can be achieved with available universal service resources. While an excessive rate of return might provide a minimally stronger incentive for rate-of-return carriers to extend broadband network deployment, this would only be so for marginal projects, which would likely be a minority of all potential projects. As a general matter, deployment decisions are not sensitive to small changes in profitability. In any case, the Commission concludes that it is preferable to achieve our deployment objectives directly and transparently through the adoption of defined mandates and appropriate targeting of subsidies, rather than in a concealed manner by maintaining an inefficiently high rate of return, which creates distortions and also creates other unintended and difficult to predict consequences. In addition to ensuring responsible stewardship of finite universal service funds, our action here will also reduce certain rates for customers in rural areas.

193. As described in detail below, the represcribed rate of return will apply in all situations where a Commission-prescribed rate of return is used. The rate of return is used to calculate interstate common line rates, consumer broadband-only loop rates, as discussed elsewhere in this Order, and business data service (i.e. special access) rates and some forms of universal service support. Accordingly, the new 9.75 percent rate of return will be used to calculate common line rates, special access rates and universal service support for rate-of-return incumbent LECs where applicable. In represcribing the rate of return here, the Commission does not intend to affect the calculation of and recovery amounts associated

with switched access rates that are currently capped or transitioning pursuant to the USF/ICC Transformation Order. Relying primarily on the methodology and data contained in the Wireline Competition Bureau's Staff Report – with some minor corrections and adjustments in part to respond to issues raised in the record – the Commission now identifies a more robust zone of reasonableness between 7.12 to 9.75 percent. The Commission then adopts a new rate of return at the top end of this range at 9.75 percent and a transition to this authorized rate of return.

**A. Discussion**

**1. Procedural Issues**

194. Section 205(a) of the Communications Act requires the Commission to give “full opportunity for hearing” before prescribing a rate including the authorized rate of return for rate-of-return carriers. However, as the Commission explained in the USF/ICC Transformation Order, a formal evidentiary hearing is not required under section 205, and the Commission has on multiple occasions prescribed individual rates in notice and comment rulemaking proceedings. In the USF/ICC Transformation Order, the Commission specified the process for a new rate of return prescription proceeding using notice and comment procedures, and on the Commission’s own motion, waived certain procedural rules to facilitate a more efficient process, including specific paper filing requirements. The Commission also sought comment in the USF/ICC Transformation FNPRM, 76 FR 78384, December 16, 2011, on the rate of return calculation and the related data and methodology to so calculate. In addition, as noted above, the Bureau issued a Staff Report recommending a zone of reasonableness for the rate of return and sought comment on its approach in a public notice.

195. On December 29, 2011, NECA, the Organization for the Promotion and Advancement of Small Telecommunications Companies, and the Western Telecommunications Alliance (collectively, Petitioners) filed a joint petition for reconsideration of the USF/ICC Transformation Order that remained pending at the time the Staff Report was released. Petitioners challenge, among other things, the procedures adopted in the USF/ICC Transformation Order as “insufficient to meet the hearing requirement of section 205(a)” and relevant provisions of the Administrative Procedure Act (APA).

Specifically, Petitioners argue that the Commission must first address “identified flaws” in its rules governing represcription before conducting a hearing based on those rules, using procedures that are “sufficiently rigorous for the adjudicative, adversarial fact-finding process required under section 205(a) of the Act and the APA.” The Rural Associations raised similar issues in their comments on the Staff Report, which the Commission also addresses.

**a. Whether Commission Should Revise Prescription Rules Before Represcribing Rate of Return**

196. Petitioners argue that, prior to represcribing, the Commission must first adopt revised rules addressing alleged “flaws” in the prescription rules. According to Petitioners, the Commission “admitted its methodology for determining ‘comparable firms’ was deficient” in that it did not know how to account for the fact that many rate-of-return incumbent LECs are locally owned and not publicly traded. Petitioners argue that the Commission should correct these alleged “flaws” in the rules before represcribing the rate of return. Similarly, the Rural Associations and GVNW argue that having waived Part 65 procedural rules governing prescription, the Commission must establish clear replacement rules to govern the process under section 205. The Rural Associations note that in the 2001 MAG Order, 66 FR 59719, November 30, 2001, the Commission stayed the effectiveness of section 65.101 to allow the Commission comprehensively to review the Part 65 rules to ensure that decisions they make are consonant with current conditions in the marketplace but assert that “complete review” has yet to occur.

197. The Commission disagrees with Petitioners and hereby deny their Petition with respect to these claims. Petitioners mischaracterize the Commission’s prescription process as rigid adherence to set methodologies. The rules provide a framework, but leave the Commission discretion to qualitatively and quantitatively estimate a rate of return. The Commission’s prescription rules specify the calculations for computing the rate of return, i.e. the cost of capital and its component parts, “unless the record in that [prescription] proceeding shows that their use would be unreasonable.” The orders cited by Petitioners in support addressed deficiencies with the record, not necessarily with the rules themselves, and the Commission has revised those rules since those orders cited were released. Petitioners cite generally the

1990 Prescription Order, 55 FR 51423, December 14, 1990, as support for their arguments. The Commission in the 1990 Prescription Order, however, rejected the notion that the rules were so flawed that the rulemaking docket related to Part 65 methodologies for calculating the rate of return would need to be complete before represcribing, finding that “while some refinements might be desirable, the Part 65 procedures had worked quite well” when it initiated the prescription proceeding. Similarly, the Rural Associations cite the 2001 MAG Order that stayed the section 65.101 to allow time to review the Part 65 rules. The Commission, however, reviewed the Part 65 rules in the 2011 USF/ICC Transformation Order & FNRPM, waiving certain rules to facilitate a more efficient process. Bureau staff also reviewed Part 65 rules in the Staff Report subject to notice and comment proposing waiving certain provisions that are no longer reasonable. By this Order, the Commission addresses instances where strict application of our prescription rules would be inconsistent with a methodologically sound estimate of the rate of return. For example, the Commission revises the cost of debt formula as discussed in further detail below, and waive the rule requirement to calculate the WACC based on the cost of preferred stock. Where the Commission finds that strict application of the rules would be unreasonable, such as relying on ARMIS data from RHCs that is no longer collected, they rely on reasonable alternatives. The Commission does, however, conclude that the prescription rules and its calculations on the cost of capital continue to provide an effective starting point by which to determine an appropriate rate of return.

198. The Commission rejects Petitioners’ claims that our “methodology for determining ‘comparable firms’ was deficient,” and that they do not know how to account for the fact that many rate-of-return incumbent LECs are “locally owned and not publicly traded.” As discussed in further detail below, the most widely used methods of calculating the cost of equity, a key component in calculating the rate of return, call for data from publicly traded firms, yet the vast majority of rate-of-return carriers are not publicly traded. To address this concern, the Commission selects below an appropriate set of publicly-traded surrogate or proxy firms, for which financial data is available publicly to infer the cost of equity for these carriers. Any deficiencies in the methodology used to calculate the rate of return and use of a proxy group can be and have been addressed in the Staff Report and were subject to numerous rounds

of notice and comment, which the Commission considers and addresses again in this order.

**b. Notice and Comment Procedures Satisfy Section 205(a) Hearing Requirement**

199. Petitioners also argue that the notice and comment procedures the Commission adopted in the USF/ICC Transformation Order do not satisfy the section 205(a) hearing requirement. The Rural Associations and GVNW similarly argue that the procedural process seeking comment on the Staff Report did not provide parties with the “full opportunity for hearing” required by section 205(a). The Rural Associations assert that this is because “prior rate prescription hearings have often involved multiple submissions from parties, giving each side a fair chance to address and rebut proffered facts and arguments” and parties have “reasonable access to discovery (mainly interrogatories and document requests), either directly or as part of a required filing.” Similarly, Petitioners argue that the Commission should clarify procedures governing presentation of data and discovery. Petitioners assert that the Commission did not explain why “the need for adjudicative fact-finding – which underlie the Part 65 rules – are no longer operative.” Petitioners assert that key to the “ability to participate fully in a rate-of-return prescription hearing is access to two basic tools: (1) disclosure of the information and assumptions underlying the factual submissions of any parties seeking lower rates of return; and (2) the ability to probe others’ submissions for weaknesses and errors.” Finally, Petitioners argue that the Commission should “reinstate the 60-60-21-day time frames for adversarial filings set forth in section 65.103 of its rules” because this is “critical” for rate-of-return incumbent LECs with “limited resources to develop the data needed to prepare direct cases, to obtain the services of qualified experts to analyze this data, and to respond fully to adversarial filings.”

200. The Commission rejects these assertions because, consistent with AT&T v. FCC, interested parties have had an opportunity to participate in multiple rounds of comments. The Commission finds that interested parties had sufficient notice and opportunity to comment on the rate of return prescription process consistent with the APA and section 205 of the Act. As the Commission observed in the USF/ICC Transformation Order, a formal evidentiary hearing is not required under

section 205, and the Commission has on multiple occasions prescribed individual rates in notice and comment rulemaking proceedings. In fact, the Commission expressly rejected the proposition that it could not “lawfully use simple notice and comment procedures to prescribe the rate of return authorized for LEC interstate access services.” In the USF/ICC Transformation Order, the Commission explicitly waived outdated and onerous procedures historically associated with represcription to streamline and modernize this process. Indeed, the Commission noted that interested parties now file documents electronically making it less burdensome for parties to participate in the prescription proceeding. Accordingly, the Commission determined that the paper hearing process was no longer necessary to ensure adequate public participation.

201. Moreover, interested parties have had no less than three different opportunities to participate in the represcription process. In response to the USF/ICC Transformation NPRM, 76 FR 11632, March 2, 2011, interested parties had the opportunity to comment on whether to initiate a represcription proceeding. Subsequently in response to the USF/ICC Transformation FNPRM, interested parties had an opportunity to comment on the methodologies used to calculate the WACC and rate of return. The Commission received multiple submissions from parties, which the Commission’s Electronic Comment Filing System (ECFS) generally makes available within 24 hours. The vast majority of interested parties have had access to these materials via the Internet, giving each side a fair chance to timely address and rebut proffered facts and arguments. Based on these comments, the Commission could have gone straight to order prescribing the rate of return, but instead took the extra step of preparing, releasing and seeking comment on the Staff Report.

202. In the USF/ICC Transformation Order, the Commission waived the onerous section 65.103(b) 60-60-21 day filing schedule to coincide with the pleading cycle of the USF/ICC Transformation FNPRM. As a result, interested parties had 50 days to file comments and 30 days to file replies on how the Commission should represcribe the rate of return. Furthermore, interested parties had an additional 40 days to file comments and 30 days to file reply comments on the data and methodologies proposed by staff to calculate the rate of return in the Staff Report. The Commission finds that interested

parties had more than sufficient time and opportunity to address significant arguments and methodologies to calculate the rate of return in the record.

203. Although the Commission waived the section 65.101 requirement that the Commission publish notice of the cost of debt, cost of preferred stock, and capital structure computed in the section 65.101(a) notice initiating prescription, they find that all interested parties had adequate notice of these calculations in the Staff Report. Interested parties had an opportunity to review and comment on the Staff Report, including numerous appendices calculating the embedded cost of debt, betas, cost of equity, WACC, capital structure and times-interest-earned ratios as well as the peer review reports on the Staff Report. Furthermore, there was nothing to prevent parties from filing direct cases or written interrogatories and requests for documents directed to any rate of return submission as permitted under the Commission's rules. In sum, the Commission finds that interested parties had several opportunities to comment on the actual rate of return calculations, thereby easily satisfying the APA and section 205 procedural requirements. Accordingly, the Commission denies the Petition to the extent described herein.

## **2. Identifying and Obtaining Data to Compute WACC**

204. The first step in the process to re prescribe the rate of return is to identify the appropriate data and methodologies to use in calculating the WACC. To calculate the WACC for a company or group of companies, Commission rules require the determination of: (1) the company's capital structure, i.e., the proportions of debt, equity, and preferred stock a company uses to finance its operations; and (2) the cost of debt, equity and preferred stock. The rules specify the calculations for computing components of the WACC, including capital structure and the cost of debt and preferred stock, to determine a composite for all incumbent LECs with annual revenues equal to or above an indexed revenue threshold, adjusted for inflation. The rules do not, however, require the Commission to use the results of those calculations to determine the rate of return "if the record in that proceeding shows that their use would be unreasonable." The rules also do not specify how to calculate the cost of equity, but there are several widely-used asset pricing methods that the Commission should consider in estimating the cost of equity,

including the Capital Asset Pricing Model (CAPM) and the Discounted Cash Flow Model (DCF). Both models calculate the cost of equity based on an analysis of publicly traded representative firms' common stock. While a firm's cost of debt can generally be estimated from its accounts, or other public reports of its borrowing costs, direct estimates of the cost of equity for firms that are not publicly traded are not typically possible to make (exceptions being if the firm was sold recently, or the occurrence of some other event that revealed information about the expected income stream and market value of the firm). In such cases, it is not uncommon to infer equity costs from data on firms that are publicly traded.

205. The rules specify that the WACC be calculated using Regional Bell Holding Companies (RHCs) data reported to the Commission through Automated Reporting Management Information System (ARMIS) reports. When the Commission last represeted in 1990, it could rely on ARMIS reports to estimate the cost of debt and capital structure, which came from incumbent LECs with investment-grade bond ratings—companies engaged in substantially the same wireline operations as the small incumbent LECs also subject to rate-of-return regulation. The Commission, however, has forborne from collecting ARMIS reports from the RHCs so this data is no longer readily available. In the USF/ICC Transformation FNPRM, the Commission sought comment on what additional data the Commission should require and rely upon in the absence of ARMIS data.

206. The Commission's rate of return prescription rules envision calculating the WACC based on data from a proxy group of telephone companies that are intended to represent the universe of rate-of-return carriers. In the past, the Commission used the RHCs as proxy firms to determine capital structure and the costs of debt, equity, and preferred stock for all incumbent LECs. Today, with ARMIS reports a thing of the past, and with the largest RHCs increasingly dissimilar from the smaller rate-of-return incumbent LECs, the Commission must expand its analysis beyond the RHCs to ensure that its analysis reasonably reflects the nature of today's rate-of-return incumbent LECs. The Commission finds that it is no longer reasonable to rely exclusively on RHC data based on reports no longer collected as specified in our rules. Accordingly, the Commission finds that they must identify a comparable proxy group representing the universe of rate-of-return carriers from which to draw data to calculate the WACC.

### 3. Identifying an Appropriate Proxy Group for Rate-of-Return Carriers

207. The reliability of our WACC calculation depends on the representativeness of the proxy group the Commission selects. The Commission sought comment in the USF/ICC Transformation FNPRM on the group of companies that should be selected as proxies. Staff considered comments filed in response, proposing that the Commission use data from a proxy group of 16 companies consisting of (1) RHCs (RHC Proxies), (2) mid-sized price cap incumbent LECs (Mid-Size Proxies), and (3) publicly-traded rate-of-return incumbent LECs (Publicly-Traded RLEC Proxies). Staff developed its recommended proxy group based on qualitative comparison between rate-of-return carriers for which the WACC is being calculated and potential proxies, considering whether the proposed proxies face similar risks, which the cost of capital is a function of, and whether they have a similar institutional setup. Staff used a three-part test to select its proxy group looking at (1) whether companies' operations consisted of significant incumbent LEC price-regulated interstate telecommunications services, (2) the extent to which firms offer the same or similar services as rate-of-return carriers based on market and regulatory risks, and (3) the reliability of financial data.

208. Commenters criticize staff's methodology for selecting its proposed proxy group with which it estimated the WACC. The Rural Associations criticize the analysis for "streetlight effect" bias – i.e., the tendency to use data simply because it is available, not because it is relevant." The Commission disagrees and find that staff reasonably relied on available data that was both relevant and reliable.

209. As an initial matter, there is scant reliable publicly available data for estimating the cost of capital specific to rate-of-return incumbent LECs. The most widely used methods of estimating the cost of equity in particular call for data only available from publicly-traded firms, yet the vast majority of rate-of-return carriers are not publicly traded. A publicly-traded company's stock price and dividend payments are observable, while those of a privately held firm, including the overwhelming majority of rate-of-return incumbent LECs, are not. Therefore, using the models used most often to estimate the cost of equity, the cost of equity for firms that are not publicly traded is inferred based on data from firms that are publicly traded. Because the vast majority of rate-of-return carriers are not publicly traded, the

Commission must select an appropriate proxy group of incumbent LECs, for which financial data is publicly available and which face similar risks as rate-of-return carriers to calculate the cost of capital.

210. Furthermore, staff selected the proxy group based in part on the reliability of financial data such as the frequency equity is traded and overall financial health. These factors were not, however, the only factors. Staff also relied on publicly-available data and observable stock prices for a proxy group of publicly-traded telecommunications companies that would enable the development of estimates that as closely as possible reflect the risk of the market for regulated interstate telecommunications services. To select this proxy group, staff applied a qualitative analysis that included a number of different factors, including the extent to which a company's operations could be classified as price-regulated interstate telecommunications services and similarity to rate-of-return operations. The Commission finds that staff's qualitative approach was reasonable, not simply relying on available data, but data that was both reliable and relevant to the analysis.

211. As one key criterion for selection, staff required that a proxy firm derive 10 percent or more of its revenues from price-regulated interstate telecommunications services as an incumbent LEC. The Rural Associations characterize this selection criteria as "arbitrary" and without justification, which it claims is lower than the rate-of-return incumbent LECs as a group. While the Commission agrees with the Rural Associations that 10 percent is a relatively low number, they find the proxy group of firms selected after applying the 10 percent threshold (along with the other criteria used in the Staff Report) to be reasonable. Staff looked at earnings and revenues reported on companies' Securities and Exchange Commission (SEC) Form 10-Ks to identify its proxy group. SEC Form 10-Ks for the proxy group reveal that notwithstanding diversification, most, if not all, of the firms in the proxy group derive a substantial, and in many cases, the largest, portion of their revenues from facilities-based wireline telecommunications services provided over networks that they own, finance, build, operate, and maintain, which is exactly what rate-of-return incumbent LECs do. Staff excluded from the proxy group telecommunications companies that provide a different core or set of core services, and/or different assets, scale, scope, customer base, marketing strategy, market or market niche, and/or competitive position than

facilities-based wireline telecommunications services.

212. The WACC estimates the cost of capital for price-regulated interstate special access and common line services which are facilities-based wireline telecommunications services. The proposed proxy group consisted of firms where, in addition to their price-regulated business operations, a substantial portion of their business operations that are not price-regulated provide facilities-based wireline telecommunications services. Thus, an overall WACC estimate for the firm as a whole should be a reasonable approximation of the WACC for the price-regulated interstate access service. In fact, many of the wireline network assets, e.g., wire centers, nodes, fiber or copper, conduit, trenches, manholes, telephone poles, etc., are shared among these different wireline services. Moreover, some of the different wireline services are sold to the same customers. Thus, given at least roughly similar supply-side characteristics, and roughly similar demand-side characteristics, the risk of the facilities-based price-regulated interstate access services and the risk of these companies' other facilities-based services would reasonably be expected to have roughly similar, though not precisely the same, level of risk. There are no pure-play, price-regulated providers of wireline interstate access services that issue publicly-traded stock on which to base WACC estimates. The Commission therefore finds that staff's application of the 10 percent threshold produces a reasonable proxy on which to base estimates of the WACC for price-regulated interstate access services.

213. The Rural Associations criticize staff's proxy group for including RHCs Proxies, Mid-Size Proxies and Publicly-Traded RLEC Proxies as unrepresentative of the market risks that rate-of-return incumbent LECs face affecting their ability to attract capital. For example, the Rural Associations proposed estimating the cost of capital using rate-of-return incumbent LEC-specific data rather than data assembled from staff's proxy companies. ICORE asserts that the RHC Proxies and Mid-Size Proxies have more diverse offerings than rate-of-return incumbent LECs which therefore face higher costs of capital. Ad Hoc rebuts that argument, noting that it does not necessarily follow that less diverse operations means higher cost of capital and criticizes such arguments as "pure speculation" lacking any evidentiary basis. AT&T notes that critics of staff's proxy group did not submit data into the record to

negate the need for proxies or proxies more representative of rate-of-return incumbent LECs than staff's proposed proxy. The Commission finds the staff's selection of the proxy group reasonable for the reasons given above and reject the Rural Associations' proposed proxy group for the reasons below.

214. In addition, the Rural Associations, the Alaska Rural Coalition and peer reviewer Professor Bowman question the inclusion in the proxy group of firms that had recently emerged from bankruptcy proceedings, including FairPoint Communications, Inc. (FairPoint), Hawaiian Telecom, as well as certain "financially unhealthy" Mid-Size Proxies. Professor Bowman argues in general that rate-of-return regulation is appropriate for companies that are financially healthy, and that an operation that is subject to rate-of-return regulation would not be expected to go bankrupt. Staff acknowledged in the Staff Report that a company's overall financial health makes its financial data more reliable in determining the cost of equity than that of a company in financial difficulty, which was part of staff's three-part test in selecting the proxy group.

215. FairPoint entered bankruptcy in October 2009 and exited in January 2011, while Hawaiian Telecom entered bankruptcy in December 2008 and exited in October 2010. In the Staff Report, staff generally based the betas, a variable included in the CAPM cost of equity calculation that measures a company's stock volatility relative to the market, on weekly data for the 5-year period ending September 18, 2012. However, staff accounted for the FairPoint and Hawaiian Telecom bankruptcies by basing their betas instead on post-bankruptcy data. As a result, none of the data on which their betas are based reflects the business changes FairPoint or Hawaiian Telecom undertook during the periods prior to and during bankruptcy. Staff's adjustment should minimize any potential error in the CAPM estimates of the cost of equity for FairPoint and Hawaiian Telecom relating to bankruptcy. As neither FairPoint nor Hawaiian Telecom pays dividends, staff did not use the DCF model to estimate the cost of equity for these two companies in the Staff Report. Further, capital structure estimates are based on post-bankruptcy data, which should minimize errors to the WACC estimates. In response to Bowman's assumption that rate-of-return companies would not be expected to go bankrupt, the Commission notes that there were other rate-of-return incumbent LECs that went bankrupt that staff excluded from its proxy

group that otherwise would have met its three-part test. Thus, staff was careful to calculate the rate of return based on data from its proxy group that it felt were representative of most rate-of-return companies.

216. The Rural Associations also criticize the financial health of the Mid-Size Proxies included in staff's proxy group. Staff acknowledged in the Staff Report that the Mid-Size Proxies in general have a large share of debt in their capital structures, low times-interest-earned ratios, and non-investment-grade debt ratings, and thus are less than ideal for estimating the cost of capital. Staff also found, however, that the Mid-Size Proxies are less diversified than RHCs and thus match more closely the majority of rate-of-return incumbent LECs' wireline service offerings. Staff further found that the Mid-Size Proxies, like the majority of rate-of-return incumbent LECs, but in contrast to the RHCs, have a significant fraction of their incumbent LEC operations in sparsely populated, high cost, rural areas of the country. Further, staff found that the Mid-Size Proxies have a relatively large number of analysts' growth estimates compared to the Publicly-Traded RLEC Proxies which is reflected in the consensus growth rate used in the DCF model to estimate the cost of equity. Thus, in the Staff Report, staff recommended that the Commission include the Mid-Size Proxies in calculating a composite WACC, but not rely on them exclusively.

217. The Commission agrees with the staff recommendation in the Staff Report to include, but not rely exclusively on the Mid-Size Proxies in the overall proxy group. The Rural Associations raised concerns with the Mid-Size Proxies other than Windstream, because in its view these firms are not in good financial health. The Rural Associations, however, did not offer any concrete definition of good financial health, nor any objective and practical criteria that might be used to measure the health of the firms and to determine whether they should be excluded from the process of estimating the WACC. Although these Mid-Size Proxies might be less than ideal proxies for estimating the cost of capital, the Commission is reluctant to exclude them from the overall proxy group and thus lose the value these proxies contribute generally to the data and WACC estimates. These incumbent LECs operate in areas similar to the sparsely populated, high cost, rural areas in which rural rate-of-return incumbent LECs operate, and are publicly-traded and studied by financial professionals, making it possible to develop

WACC estimates for these companies using standard cost of capital methodologies. In our judgement, averaging WACC estimates for these Mid-Size Proxies along with estimates for the other companies in the overall proxy group to develop an overall WACC estimate for rate-of-return incumbent LECs is more likely than not to improve the accuracy of the overall estimate, notwithstanding the potential for error in the WACC estimates for the Mid-Size Proxies. There is no perfect WACC estimate, as a WACC estimate made for any company always will have some amount of error, which is why the Commission considers a range of possible results.

218. In sum, the Commission finds that staff's approach to identifying a representative proxy group to be reasonable, including its decision to include RHC Proxies, Mid-Size Proxies, and Publicly-Traded RLECs Proxies in the proxy group. Notably, joint peer reviewers Albon and Gibbard found that the selections made appropriately balanced the trade-offs of a proxy group that is too small, which results in measurement errors, and a proxy group that is too large, which is unrepresentative. The Commission reiterates and agrees with staff's position that, collectively, the three groups represent a wide spectrum of incumbent LEC operations, include both price cap and rate-of-return regulated operations, and include those incumbent LECs with the most widely traded equity, allowing greater confidence in the calculations that rely on the public trading of stock, especially given that it is highly uncertain where within that spectrum non-publicly-traded rate-of-return incumbent LECs lie.

#### **4. Data Relied on in Staff Report**

219. The allowable rate of return should reflect a reasonable estimate of the current cost of capital. The Bureau released the Staff Report on May 16, 2013, calculating the WACC based on data then-available. This raises the question whether the Commission should continue to rely on such data to calculate the rate of return. The Commission finds that changes to monthly average yields on Treasury securities and corporate bond yields since the Staff Report was issued are not significant enough to warrant a complete update of the data used by staff to calculate the cost of capital. Accordingly, for the reasons explained below, the Commission continues to rely on data in the Staff Report used to calculate the WACC.

220. Section 65.101(a) of our rules specifies that the Commission should initiate the rate of return prescription process when they determine that the monthly average yields on 10-year Treasury securities remain, for a consecutive six month period, at least 150 basis points above or below the average of the monthly average yields in effect for the consecutive six month period immediately prior to the effective date of the current prescription. As the cost of capital is constantly changing as a result of the interactions in the financial markets between buyers and sellers of debt and equities, our rule recognizes that the existing rate of return is based on financial data that is a snapshot in time and as such might not reflect the prevailing cost of capital. Likewise, the data reflected in the Staff Report is a snapshot in time that might not reflect the current cost of capital at a different point in time. The rule implicitly recognizes that the cost of debt and equity, in general, can be expected to move roughly together over time, as debt and equity investors seek to optimize their portfolios, choosing among alternative investments by balancing the tradeoff between the expected risk and return of these alternatives, and as firms seek to optimize their capital structures, choosing between debt and equity to finance their assets. The Commission also now has the benefit of commenters' and peer reviewers' scrutiny of the Staff Report, including the data relied on in that report.

221. The Commission therefore analyzes interest rates, similar to the analysis contemplated under section 65.101(a), to determine whether the data relied in the Staff Report to calculate the WACC is appropriately current for represcribing the rate of return in this Order. For this analysis, the Commission uses two different six-month benchmarks against which to compare more recent interest rates. First, the Commission calculates the average of the monthly average yields in effect for the consecutive six-month period beginning October 2012 and ending March 2013. To be thorough, the Commission calculates this six-month average not only for 10-year Treasury securities, but also for 5-, 7-, 20-, and 30-year securities, as published online by the Federal Reserve and Moody's Aaa and Baa corporate bond yields which are published online by the Federal Reserve. The Commission chooses this six-month period because in the Staff Report (1) the expected risk-free rate reflected in the CAPM was the rate in effect as of the market close on March 26, 2013, (2) the stock prices and dividend payments reflected in the DCF model were as

of the market close on March 26, 2013, and (3) the growth rates used in the DCF model were as of March 27, 2013. For the second six-month benchmark, the Commission averages the monthly average yields in effect for the consecutive six-month period beginning July 2012 and ending December 2012. The Commission calculates six-month averages for the same securities identified above. The Commission chooses this six-month period because in the Staff Report (1) the cost of debt is based on 2012 interest expense and debt and equity outstanding data, and (2) the estimate of the expected market risk premium used in the CAPM is based on stock price and interest rate data for the years 1928 to 2012.

222. The Commission compares the most recent monthly yields on the various Treasury and corporate securities to these two benchmarks. With respect to the October 2012-March 2013 benchmark, the monthly average yield on 10-year Treasury securities, the key benchmark in rule 65.101(a), in September 2015, the most recent month for which yield data are published by the Federal Reserve, is 2.17 percent, as compared to the six-month average of the average monthly yields, 1.83 percent. This difference is only 34 basis points, a spread significantly less than 150 basis points, the standard reflected in rule 65.101(a). The differences between the September 2015 average yields on the 5-, 7-, 20-, and 30-year Treasury securities and on Aaa and Baa corporate bonds, as compared to the six-month average of the monthly average for each security, respectively, are as follows: 73, 66, 34, 2, -5, 36, and 65 basis points. The greatest difference between the six-month average and any monthly average for any of these securities is the 107 basis point difference that existed in December 2013 and January 2014 for 7-year Treasury securities and December 2013 for 10-year Treasury securities, but the average of these differences for these securities were only 76 and 57 basis points, respectively, over the entire period. The fact that greatest difference between the six-month average and any monthly average for any of these securities is only 107 basis points demonstrates that the difference was never as large as 150 basis points relative to a single month, let alone for six consecutive months, the standard under the Commission's rule. The average of the differences between the six-month average and monthly averages throughout the period for the 5-, 20- and 30-year Treasury securities and Aaa and Baa corporate bonds were only 74, 36, 24, 42, and 27 basis points, respectively.

223. With respect to the July 2012-December 2012 benchmark, the monthly average yields on 5-, 7-, 10-, 20-, and 30-year Treasury securities and Aaa and Baa corporate bonds in September 2015 as compared to the six-month average of the average monthly yields for each security, respectively, are as follows: 81, 78, 50, 21, 15, 57, and 62 basis points. The greatest difference between the six-month average and any monthly average for any of these securities is the 123 basis point difference that existed in December 2013 for 10-year Treasury securities, but the average of these differences for this security was only 68 basis points over the entire period. The average of the differences between the six-month average and monthly averages throughout the period for the 5-, 7-, 20- and 30-year Treasury securities and Aaa and Baa corporate securities were only 75, 82, 53, 43, 61, and 22 basis points, respectively.

224. Based on these findings, the Commission concludes that interest rate changes have not been sufficiently large between release of the Staff Report and this Order adopting the new rate of return to warrant updating the data in the Staff Report. The yields today on Treasury securities and on Aaa and Baa corporate bonds are not significantly different from the yields on these securities that existed at the time of the study—the differences in all cases are much less than 150 basis points. Accordingly, the Commission will rely on the data reflected in the Staff Report, except in those instances where the Commission makes adjustments to reflect valid concerns expressed by the commenters and peer reviewers in the record of this proceeding. In those cases, the Commission will use data of the same time periods as the data in the Staff Report to ensure consistency.

## **5. Calculating the WACC**

225. As discussed above, the WACC estimates the rate of return that the incumbent LECs must earn on their investment in facilities used to provide regulated interstate services in order to attract sufficient capital investment. The Commission's rules specify that the composite WACC is the sum of the cost of debt, the cost of preferred stock, and the cost of equity, each weighted by its proportion in the capital structure of the telephone companies:

$$\text{WACC} = [(\text{Equity} / (\text{Debt} + \text{Equity} + \text{Preferred Stock})) * \text{Cost of Equity}] + [(\text{Debt} / (\text{Debt} + \text{Equity} + \text{Preferred Stock})) * \text{Cost of Debt}] + [(\text{Preferred Stock} / (\text{Debt} + \text{Equity} + \text{Preferred Stock})) * \text{Cost of Preferred Stock}]$$

226. The Commission's rules currently require that the capital structure be calculated using the observed book values of debt, preferred stock, and equity. Under the Commission's rules, capital structure is calculated as follows:

$$\text{Capital Structure} = \text{Book Value of a Particular Component} / (\text{Book Value of Debt} + \text{Book Value of Preferred Stock} + \text{Book Value of Equity})$$

227. In the Staff Report, staff recommended calculating capital structure using market values instead of book values as a better indicator of a firm's target capital structure. The book value of a firm is the book value of its equity plus the book value of its liabilities whereas the market value is the amount that would have to be paid in a competitive market to purchase the company and fulfill all of its financial obligations, i.e., the sum of market values of debt and equity. Staff found that several carriers within the proxy group have book value capital structures in excess of 100 percent debt plus equity, which is nonsensical because presumably a firm's stock trades at a positive price. Because a firm normally has a positive equity value, its debt should be less than 100 percent debt plus equity. Accordingly, staff concluded that book values did not provide reasonable data with respect to capital structure as required by section 65.300. Instead, staff proposed using market values as a more accurate approximation of capital structure. Commenters did not weigh in on staff's proposed approach. Professor Bowman recommends an alternative approach be considered for calculating capital structure based on the capital structure that would be appropriate to "encourage a new entrant in a (quasi) regulated competitive market." Bowman notes, however, that this method is "unavoidably subjective to a degree beyond that of the standard estimations developed in [the Staff Report]." Staff noted a similar alternative approach in the Staff Report, a hypothetical capital structure that regulators sometimes use to develop WACC estimates. The Commission finds that the firms themselves know more about their businesses than they could, therefore

it will not substitute our judgement for firms' real-world decision-making as to the choice between debt and equity financing, as reflected in the data. Moreover, a capital structure that would encourage market entry is difficult to estimate and, as Bowman asserts, is subjective, as there is no widely accepted theory on the debt-equity choice. Therefore, the Commission declines to adopt this approach. The Commission finds that staff's approach using market values instead of book values to estimate capital structure is reasonable and adopt this approach.

**a. Cost of Debt**

228. The embedded cost of debt is the cost of debt (expressed as a rate of interest) issued by the firm in the past and on which it paid interest over an historical accounting period (e.g., the most recent calendar year). The current cost of debt is the cost of debt that the firm would issue today and on which it would pay interest going forward (and thus sometimes is said to be a forward-looking cost). In the Staff Report, staff calculated the cost of debt based on the embedded cost of debt formula specified in the Commission's rules with data derived from staff's proxy group SEC Form 10-Ks. In the alternative, staff considered calculating the cost of debt based on the current cost of debt, which would be based on the current yield on bonds that have the same rating as the proxy firms, and for a maturity period comparable to the maturity period typical for the debt issued by the proxy firms. Staff found, however, that estimating the current cost of debt would be too imprecise because it would have to account for the many characteristics of debt that affect the yields paid in debt, including maturity, fixed versus variable interest rates, seniority, and callable versus convertible debt. Staff also reasoned that a more precise calculation might also require knowledge of how much of each type of debt instrument each company uses. Ultimately, staff concluded that, on average, the embedded cost of debt and the current cost of debt should not differ significantly among the proxy group given declining interest rates and that companies in good financial health are able to refinance, provided there have not been substantial changes in the cost of debt since the last filed SEC Form 10-K. Therefore, staff recommended estimating the cost of debt based on the embedded cost of debt formula in the Commission's rules, as corrected. The Commission agrees with staff's general approach with corrections to the embedded cost of debt formula recommended and

noted below.

229. The Commission's rules provide that the cost of debt is calculated as follows:

$$\text{Embedded Cost of Debt} = \text{Total Annual Interest Expense} / \text{Average Outstanding Debt}$$

where "Total Annual Interest Expense" is equal to "the total interest expense for the most recent two years for all local exchange carriers with annual revenues equal to or above the indexed revenue threshold as defined in section 32.9000" and "Average Outstanding Debt" is equal to "the average of the total debt for the most recent two years for all local exchange carriers with annual revenues equal to or above the indexed revenue threshold as defined in section 32.9000."

230. As noted in the Staff Report, this formula overstates the cost of debt because it uses two years' interest expense divided by an average of two years' total debt. This would approximately double the embedded cost of debt, resulting in an incorrect input to the WACC. The Commission finds that the changes the Staff Report made to the definitions used in the equation in the Commission's rules for calculating the embedded cost of debt are correct and will use these revised definitions to estimate the cost of debt for purposes of prescription. The Commission therefore adopts the following formula from the Staff Report for calculating the embedded cost of debt based on the most recent year's interest expense:

$$\text{Embedded Cost of Debt} = \text{Previous Year's Interest Expense} / \text{Average of Debt Outstanding at the Beginning and at the End of the Previous Year}$$

231. While the Staff Report did correctly modify the Commission's existing formula, it failed to implement the revised formula correctly, as USTelecom and AT&T point out. In particular, staff used 2012 total interest expense in the numerator of the revised formula and the average of outstanding non-current long-term debt at the end of 2011 and 2012 in the denominator. This calculation understates the total amount of debt in the denominator because it excludes the current portion of long-term debt on which the carriers continue to pay interest. Thus, the Staff Report overstated the cost of debt.

232. USTelecom proposes an alternative approach that eliminates this error and that purports to capture a more forward-looking cost of debt. In particular, USTelecom proposes that company

financial reports (i.e., SEC Form 10-Ks) be used to develop the cost of debt by dividing reported long-term debt interest payment obligations for 2013 by total long-term debt as of December 31, 2012. As an initial matter, this is not a true “forward-looking” (i.e., a current cost) methodology because it is based on the interest payment obligations on debt that was issued in prior years, not on interest obligations on newly issued debt. For the reasons given in the Staff Report, as discussed above, the Commission will not estimate the current cost of debt but will rely on the embedded cost of debt formula, as corrected, in the Commission’s rules.

233. In addition, USTelecom’s proposed approach uses data from a section of the SEC Form 10-K reports that at least for some carriers does not account for the fact that bonds often are sold at a discount below or a premium above the face value of the bond. Thus, the numerator in USTelecom’s debt calculation is based on interest “payments,” which does not account for discounts and premiums, rather than based on interest expense, which does account for discounts and premiums, under generally accepted accounting principles (GAAP). Meanwhile, the debt in the denominator is the principal or payoff amount of the debt, which does not account for discounts and premiums, rather than the amount of debt outstanding, net of discounts and premiums, as recorded on the balance sheet. As a result, the cost of debt under this approach would understate the effective rate of interest for a bond sold at a discount or overstate this rate for a bond sold at a premium. The Commission therefore declines to adopt USTelecom’s proposed approach.

234. The Commission’s rules further specify that total interest expense be used in the numerator of the embedded cost formula. The Commission interprets the word “total” in the phrase “total interest expense” to refer to the total of both short- and long-term interest expense, not just long-term expense, as was used in this formula in the Staff Report. In the 1990 Represcription Order, 55 FR 51423, December 14, 1990, the Commission included in the numerator of its embedded cost of debt calculation both short- and long-term interest expense. The Commission’s formula for estimating the embedded cost of debt includes the average of total debt in the denominator. The Commission interprets the word “total” in the phrase “total debt” to refer to the total of short- and long-term debt, not just long-term debt, as is

used in this formula in the Staff Report. It necessarily also includes the current portion of the long-term debt because interest must be paid on the current portion of long-term debt, and this interest would be reflected in the numerator as part of total interest expense. If the interest expense related to the current portion of long-term debt is in the numerator, then to be logically consistent the current portion of long-term itself would have to be included as part of the total debt in the denominator. In the 1990 Represcription Order, the Commission included in the denominator of its embedded cost of debt calculation both short- and long-term debt and presumably the current portion of the long-term debt.

235. The Commission includes as part of total debt in the denominator of the embedded cost of debt calculation, obligations under capital leases, including the current portion of capital leases. It is not entirely clear whether the Commission included capital leases in its debt calculation in the 1990 Represcription Order. Obligations under capital leases, however, were identified at that time as part of total long-term debt in FCC Form M and ARMIS reports. Likewise, interest expense related to capital leases was included as part of total interest and related items in these reports. Thus, including obligations under capital leases and the related interest expense in the cost of debt calculation seemingly would have been consistent with the accounting reflected in the FCC Form M and ARMIS reports. The Commission includes capital leases here as part of total debt because the lessee assumes some of the ownership risks of the asset that is being leased, while it benefits from the productive deployment of that asset. Moreover, an asset (e.g., the equipment that is being leased) and a liability (the lease payment obligations) are recorded on the lessee's balance sheet, while the depreciation of that asset and the interest portion of the lease payment are reflected as expenses on the income statement. And as a practical matter, including capital leases in the cost of debt calculation is the easiest way to ensure consistency between total interest expense in the numerator and total debt in the denominator in the cost of debt calculation for each company, and consistency in this calculation among all companies, given the complexities and the lack of standardization among SEC Form 10-K reports.

236. Professor Bowman states that the Staff Report is not clear on what is considered debt in its reported capital structure data. While Bowman is addressing capital structure, his point is also relevant

to our discussion of how the cost of debt is calculated because the Commission concludes the specific types of debt included in the debt portion of the capital structure should be consistent with the types of debt for which the cost of debt is calculated, to the extent possible. Bowman posits that all interest bearing debt should be used, arguing that the fact that an interest bearing debt is due in less than one year does not change its characteristic of being debt, while non-interest bearing liabilities should not be classified as debt. Bowman's preferred definition of debt is consistent with the definition reflected in our rules for estimating the embedded cost of debt and with the data the Commission used for this calculation in the 1990 re prescription proceeding. The Commission concludes that, consistent with Professor Bowman's recommendation and our rules, the embedded cost of debt calculation should reflect short- and long-term debt, including the current portion of long-term debt, capital leases, including the current portion of long-term leases, all of the interest expense related to such debt and leases, and should account for premiums and discounts on the long-term debt. Based on data from each proxy's SEC Form 10-K, the Commission revises the embedded cost of debt calculation reflected in the Staff Report accordingly.

237. In the Staff Report, staff estimated the cost of debt for the proxy group of 16 carriers used in that report to be 6.19 percent. Under the revised calculation, the Commission now estimates the embedded cost of debt for the proxy group of 16 carriers used in the Staff Report to be 5.87 percent. The Commission also will revise the WACC estimate to reflect this revised cost of debt calculation for each carrier in the proxy group. The Commission also concludes that the definition of debt reflected in the estimate of capital structure should be the same as the one reflected in the estimate of the embedded cost of debt. Accordingly, the Commission revises the estimate of the capital structure developed in the Staff Report so that it reflects the same definition that they adopt in this order for estimating the embedded cost of debt. The average of the revised estimate of the capital structure for the proxy group is 54.34 percent debt and 45.66 percent equity.

**b. Cost of Equity**

238. The Commission's rules do not specify how the cost of equity is to be calculated, and there are several methods that might be used to estimate the cost of equity. The Capital Asset Pricing

Model (CAPM) is the most widely used method in commerce, while the Commission relied on the Discounted Cash Flow Model (DCF) to calculate the cost of capital in the 1990 Represcription Order. Both models calculate the cost of equity based upon an analysis of firms' common stock, among other inputs. Staff recommended using both CAPM and DCF to determine the cost of equity, and to create a zone of reasonableness, because both models have different advantages and limitations.

(i) **Capital Asset Pricing Model (CAPM)**

239. CAPM is widely used by financial practitioners to calculate the cost of equity of publicly traded firms. The required rate of return in CAPM is the sum of the risk free interest rate and an asset beta times a market premium. The required rate of return in CAPM is:

$$\text{Asset rate of return} = \text{Risk free interest rate} + (\text{Asset Beta} * \text{Market Premium})$$

(a) **Primary Variables in CAPM**

240. Risk-Free Interest Rate. The risk free interest rate is the return that investors expect to earn on their money having the certainty that there will be no default. AT&T, the Rural Associations, Alaska Rural Coalition and GVNW assert that the way staff in the Staff Report calculated the risk-free rate of return interest rate is artificially low because staff chose a 10-year Treasury interest rate for a single day. Staff used the then-current 10-year Treasury note, 1.92 percent on March 26, 2013, as the risk free interest rate. The Alaska Rural Coalition and AT&T assert that use of this interest rate fails to acknowledge that interest rates were at historic lows at this point in time. In the alternative, AT&T proposes taking an average of 20-year Treasury bond rates over the past six months. AT&T argues that while use of the most current day's rate of interest might be an unbiased predictor, it has a large variance, and so an average rate calculated over a period such as the past six-months should be used instead. Professor Bowman agrees with staff that "the WACC, and hence the costs of debt and equity, should be a forward looking estimates" and "[c]urrent rates on Treasury bonds reflect future interest rates." However, Professor Bowman recommends averaging over a reasonably long period of time, perhaps three to six months.

241. Staff used as the expected risk-free rate the then-current rate of interest at the market's

close on March 26, 2013, rather than an historical average of past interest rates calculated over a period of time, a forecast, or a rate based on some other methodology. Staff reasoned that the current interest rate as of a single day was the best predictor of the future interest rate on government securities incorporating investors' current expectations about the future rate. Staff noted that the current interest rate frequently is a better predictor of future interest rates than professional forecasts. Staff relied on an efficient market theory, taking as an assumption that bond markets are efficient, meaning that interest rates factor in all publicly-available information, and that current interest rates adjust quickly to reflect new public information as it becomes available. Staff noted criticisms of the efficient market theory in the Staff Report. Efficient markets do not mean perfect markets—public information that is thought to be reflected in interest rates is not always accurate; bond markets are surprised by and overreact or underreact to new events and new or revised information. At the same time, many practitioners recognize that professional forecasts have value, though these forecasts always will have error, and commenters express a concern that use of a single day's rate as the predictor of future rates ignores the relatively low level of today's interest rates.

242. Accordingly, instead of relying solely on efficient market theory and use of the then-current, March 26, 2013 rate of interest on the 10-year Treasury note as the expected risk-free rate, the Commission concludes that a blended approach taking all these factors into account would be preferable. The Commission therefore derives the risk-free rate of return interest rate by weighting equally: (1) the March 2013 average 10-year rate, thus recognizing in part the tenets of efficient market theory; and (2) the 3.70 percent 10-year forecast for the 10-year Treasury rate by produced by the Survey of Professional Forecasters for the first quarter of 2013 published by the Research Department of the Federal Reserve Bank of Philadelphia, and referenced by the Rural Associations in their comments, thus also recognizing the value of professional forecasts. The Commission believes that this blended approach reasonably reflects the acknowledged, albeit imperfect, predictive value of current interest rates, and the value of the informed, though imprecise, judgement of professional forecasters.

243. Use of the March 2013 average 10-year Treasury rate as part of this revised approach is

consistent with AT&T's and Professor Bowman's suggestions that an average interest rate be used rather than the rate on a single day. The Commission disagrees, however, with their suggestions that this average should be calculated looking back over a period as long as three or six months. The Commission believes that capital markets are reasonably efficient. The primary reason for using a historical average, in our view, is to ensure that any temporary aberration in the interest rate on any given day not be erroneously reflected in the estimate. In other words, the purpose is to smooth out any large, though random, variation that might be in the interest rate on any given day, especially during a period in which markets might be particularly volatile. The Commission believes that a one-month average is long enough to ensure that the estimate does not reflect any such aberration. At the same time, a one month average is short enough that it is reasonably consistent with the notion that bond markets are efficient, so that it reflects reasonably fresh, publicly-available information.

244. The March 2013 average 10-year rate is 1.96 percent, slightly higher than the March 26, 2013 interest rate of 1.92 percent used in the Staff Report, and also higher than the three-month average of 1.95 percent from January 2013 to March 2013, and the six-month average of 1.83 percent from October 2012 to March 2013. The 3.70 percent 10-year forecast for the 10-year Treasury rate produced by the Survey of Professional Forecasters, the other part of the blended approach to estimating the risk-free rate, is the mean of the forecasts reported by 26 professionals surveyed by the Federal Reserve Bank of Philadelphia. While the Commission might be able to obtain forecasts of this rate made by other professionals, they rely on this forecast because it has been subject to the scrutiny of the parties to this proceeding, and no such party has given any reason as to why it might be unreliable or should not be used. The Commission concludes that use of this forecast further informs the estimate of the risk-free rate, and is responsive to criticisms that the Staff Report failed to account for the relatively low level of today's interest rates. The Commission therefore finds that a reasonable estimate of the risk-free interest rate is 2.83 percent, the average of the March 2013 average 10-year Treasury rate and the 10-year forecast for this rate.

245. Betas. A company's beta is the coefficient on market returns resulting from a simple

regression of the security's returns on market returns, i.e., it is a measurement of the volatility of a company's stock compared to the volatility of the market. For purposes of determining a point estimate, staff choose weekly return intervals and an adjustment for the tendency of the regression estimate to revert to the aggregate mean of one. Professor Bowman raised a concern with including the beta estimate for one of the Publicly-Traded RLEC Proxies, New Ulm, whose beta fluctuates dramatically when measured as daily, weekly or monthly, which has a significant impact, increasing the average beta for this proxy group. Professor Bowman explains that as the explanatory power of the regression equation approaches zero, the regression coefficient (beta) must also approach zero and posits that betas measured with explanatory power less than five percent, if not higher, are biased downward, and thus he recommends that the Commission exclude New Ulm's beta from the analysis. The Commission agrees with Professor Bowman that the beta for New Ulm may cause a bias in the average beta for the Publicly-Traded RLEC Proxies. Thus, the Commission will not use the CAPM estimate of New Ulm's cost of equity in developing an overall WACC estimate. Instead, as explained below, the Commission will use a sensitivity analysis to account for New Ulm's cost of equity as part of determining that overall WACC estimate.

246. Flotation Costs. The Commission also sought comment in the USF/ICC Transformation NPRM on the importance of flotation costs – those costs associated with the issuance of stocks or bonds – for our cost of equity calculations but received little comment. Staff did not incorporate flotation costs into calculations of the cost of equity and debt meant to be representative of rate-of-return incumbent LECs in general. Professor Bowman notes that the flotation costs for debt or equity can be “substantial,” which must be annualized if they are to be included in the cost of debt which in his experience are in the order of 10 to 20 basis points. Professor Bowman notes that there is research showing that the “cost of private debt is marginally higher than for public debt, offsetting the differences in issuance costs” but concludes that because the life of equity is not specified, it is likely to be much smaller and reasonable to ignore. As explained above, staff did not include bond flotation costs in the cost of debt estimate because staff used an embedded cost of debt approach, including the use of interest expense obtained from the

income statements found in SEC Form 10-Ks of the proxy group of firms. That interest expense would have included an amount for the expense associated with the amortization of bond flotation costs calculated pursuant to GAAP in effect at the time of the study. Because flotation costs tend to be proportionately small and infrequent, and are primarily relevant for public companies issuing new securities, staff reasoned that they are not significant for the vast majority of rate-of-return incumbent LECs (which are not publicly traded) and were not incorporated into calculations meant to be representative of rate-of-return incumbent LECs in general. For the reasons explained by staff, the Commission agrees with their approach.

247. Market Risk Premiums. The market premium is defined in the CAPM as the difference between the return one can expect to earn holding a market portfolio and the risk-free interest rate. In the Staff Report, staff concluded that, calculating a historical market premium would be the best approach given the data available to the Commission. Staff considered whether small capitalization firms such as rural incumbent LECs require an additional risk premium but declined to adopt such an additional premium because the size effect seems to vary over time or even disappears, with common stock returns for smaller firms in the United States not performing significantly better than larger firms from 1980 onward.

248. Several commenters argue in favor of an additional market risk premium based on the size of the firm because they claim small firms face higher risks and illiquidity effects due to not being publicly traded, among other reasons. Ad Hoc notes, however, that critics of the Staff Report fail to provide any actual evidence of higher risk premiums being required of smaller rate-of-return rate-of-return incumbent LECs than larger publicly-traded incumbent LECs. Ad Hoc also argues that the regulated environment in which rate-of-return carriers operate alters the risks rate-of-return incumbent LECs face, reducing the importance of economies of scale due to targeting prices to a specific rate of return and guarantees of universal service funding.

249. AT&T offers a number of reasons why a size premium should not be considered in the CAPM WACC calculation. AT&T argues that the majority of rate-of-return incumbent LECs are

members of the NECA pools and these pools allow its members not only to pool their costs and revenues, but also effectively pool their risks. AT&T further argues that any risks that the smaller rate-of-return incumbent LECs might face are further reduced by rate-of-return regulation that protects them against under-earning, and the Federal Universal Service Fund and its true-up mechanisms. AT&T adds that some rate-of-return incumbent LECs have established holding company structures and resemble larger firms in terms of market and product diversification. Finally, AT&T argues that many of these rate-of-return LECs may be subject to lesser market risks, since they tend to serve more rural and less densely populated areas where competition has been slower to develop or has yet to develop. Professor Bowman favors making an adjustment when appropriate, but notes that it is not clear that firms subject to the cost of equity resulting from repricing are as small as firms that have been shown to manifest the small firm effect, and therefore staff's analysis may not warrant an adjustment.

250. As staff noted in the Staff Report, the size effect seems to vary over time or even disappears, with smaller firms in the United States not performing significantly better or worse than large firms from 1980 onward. Accordingly, the Commission concludes that there is insufficient evidence in the record to support a market risk premium specifically for rate-of-return incumbent LECs based on small firm effects. While some of the finance literature and some practitioners might suggest that relatively small and privately-held companies have a higher cost of capital than relatively large companies this is a general proposition based on examinations of different types of firms throughout the economy. As such, this analysis fails to isolate and weigh the specific advantages and disadvantages of a rate-of-return incumbent LEC, such as those cited in the record and discussed above, and thus does not necessarily apply to such carriers. Because the record does not demonstrate in a quantifiable way how the rate-of-return incumbent LECs compare to the typical small firm that operates in the U.S. economy as a whole, it is difficult to conclude that an adjustment for firm-size effects to the cost of capital for these carriers is warranted. Moreover, the Commission is aware of no state regulatory agency that has adjusted the allowable rate of return applicable to rate-of-return incumbent LECs on the basis that these incumbent LECs are relatively small, and no commenter has cited to such an instance. Therefore, the Commission

declines to adopt a market risk premium based on size effects.

251. Staff estimated the cost of equity using the CAPM with adjusted betas that were calculated using weekly data, along with its estimates for the risk-free rate and market premium, the latter based on the average historical market premium above the 10-year risk free rate for the period 1928-2012 developed by Professor Aswath Damodaran. Staff's calculation of the average of the CAPM cost of equity estimates for the 16 proxy companies is 7.18 percent, which staff determined was low compared to the cost of debt estimates, including estimates for six firms that are below the cost of debt estimates. Estimates of the cost of equity should be significantly higher than the cost of debt because equity is more risky than debt as debtholders are paid before equity holders in the event of financial difficulty, bankruptcy or liquidation. Staff noted that the difference between the arithmetic averages of large company stock returns and the long-term bond returns was 5.7 percentage points (570 basis points) over the period 1926 to 2010, while the difference between the average cost of debt estimate for the 16 proxy companies of 6.19 percent, as compared to the 7.18 percent cost of equity estimate, is only 0.99 percentage points (99 basis points). This suggests staff's cost of debt estimate is too high, or staff's cost of equity estimate is too low, or both—an issue the Commission addresses below.

**(b) Revised CAPM WACC Estimate**

252. The Commission now estimates the CAPM cost of equity using our revised estimate for the risk-free interest rate, 2.83 percent, along with the adjusted betas and market premium used in the Staff Report. Given the concern regarding the quality of the beta estimate for New Ulm Telephone (New Ulm) as discussed above, the Commission calculates the average of these estimates based on (1) the proxy group, including New Ulm, (2) the proxy group, excluding New Ulm, and (3) the CAPM estimates for the 15 firms and setting the cost of equity for New Ulm equal to its cost of debt estimate plus the average of the differences between the cost of debt and equity estimates of the 15 firms. This enables us to measure the sensitivity of the CAPM cost of equity estimates to different cost of equity estimates for New Ulm, and is similar to the sensitivity analysis of estimates for Windstream and ACS above. The Commission does not calculate the average based on setting the estimate of New Ulm's cost of equity

equal to its estimate of the cost of debt because the revised CAPM estimate of the cost of equity for New Ulm is greater than its revised cost of debt estimate (as noted above, debtholders are paid ahead of equity holders in a bankruptcy so the cost of equity should exceed the cost of debt).

253. The average of the revised CAPM cost of equity estimates for all 16 firms, including New Ulm, is 8.09 percent. Notably, the cost of equity estimate is less than the cost of equity estimate for just one of the 16 firms, Hawaiian Telecom (7.21 percent versus 7.45 percent). Meanwhile, the difference between the average cost of debt for the 16 proxy companies, 5.87 percent, and this average cost of equity estimate is 2.22 percent (222 basis points), a difference that is still relatively low, but is more than double and is more reasonably in line with expectations of the relationship between debt and equity costs found in the Staff Report, which was 0.99 percentage points (99 basis points). The average of the revised CAPM cost of equity estimates for 15 firms, excluding New Ulm, is 8.25 percent. The average of the revised CAPM estimates for the 15 firms and the estimate obtained by setting the cost of equity for New Ulm equal to its cost of debt estimate plus the average of the differences between the cost of debt and equity estimates is 8.20 percent. Thus, the average of the cost of equity estimates is not significantly affected by these alternative estimates of the cost of equity for New Ulm. Nevertheless, the Commission will account for this sensitivity in developing a reasonable range for CAPM WACC estimates.

**(c) CAPM WACC Range**

254. The Commission also addresses the issue of relatively low CAPM cost of equity estimates in determining the reasonable CAPM WACC Range, as did staff in the Staff Report. The Staff Report developed a range for the market premium used in the CAPM to obtain a reasonable range for CAPM WACC estimates. As a starting point, staff developed a 95 percent confidence interval around the arithmetic average of the difference between the annual return on the S&P 500, and the return on the 10-year U.S. government bond including capital returns, based on statistics developed by Professor Damodaran. This average is 5.88 percent (and is the risk-premium used in the CAPM in the above calculations), and a 95 percent confidence interval around this average is 1.22-10.54 percent. Staff noted that it is common to rely on as long a time series as possible when calculating the average historical

market premium, and that Professor Damodaran's historical average of 5.88 percent lies well within these ranges identified in a number of different surveys. Staff next truncated the lower end of the confidence interval to ensure that every carrier's cost of equity estimate exceeded its cost of debt estimate, recognizing the basic economic principle that the cost of equity has to be higher than the cost of debt because equity is riskier than debt. Recognizing that it is necessary to ensure that every carriers' cost of equity is not less than their cost of debt staff found that the reasonable range for an estimate of the WACC for the proxy firms is between 7.39 and 8.58 percent.

255. The Rural Associations argue that staff's truncation of the confidence interval renders staff's associated cost of capital recommendations unreliable. The Commission disagrees. First, the Commission views the range between 1.22-10.54 percent as an objective and unconditional range for the market risk premium. It reflects the variance in statistical terms in the market premium over many years and many different business cycles. The Commission also views the interval, as adjusted by staff's truncation, as a conditional market premium, one that recognizes the reality of current capital market conditions, in particular, today's relationship between the cost of debt and the cost of equity, and the basic principle that the cost of equity always will exceed the cost of debt. Increasing the lower bound as staff did also is consistent, though not necessarily in a precise quantifiable way, with Professor Bowman's argument that based on his own research and that of others, the expected risk premium is inversely correlated with the level of interest rates. Thus, when interest rates are low, as they are today, the expected risk premium is higher. Also, use of the higher lower bound for the risk premium should minimize any concerns that the approach the Commission takes in this order to develop a risk free rate for use in the CAPM does not adequately acknowledge today's low level of interest rates.

256. The Rural Associations observed and staff itself acknowledged that this adjustment to the 95 percent confidence interval is not precise. As staff noted, to the extent our estimates of the cost of debt are too high, this choice would bias upward our estimates of the return on equity. Because the cost of equity typically would materially exceed the cost of debt, however, assuming a cost of equity that equals the cost of debt tends to bias our estimates downwards. It is not clear which of these two offsetting biases

is likely to be larger. In practice, this is not a significant concern because this adjustment affects only the lower bound, not the upper bound of the CAPM WACC range of reasonable estimates. As long as the Commission does not select an estimate that is at or near the bottom of this range, that estimate and the resulting allowable rate of return should be reasonable. Moreover, the Commission also has the DCF WACC range of reasonable estimates on which to rely. The WACC and DCF have different strengths and weaknesses, and the Commission reduces the likelihood of error by developing WACC estimates using both models. As long as the Commission also selects an estimate that is consistent with the DCF WACC range, then that estimate should be a reasonable estimate.

257. The Commission now estimates new lower and upper bounds for the range of reasonable WACC CAPM using our revised estimate for the risk-free rate, 2.83 percent, along with the adjusted betas and the staff's approach for establishing a range for the market premium. The Commission develops different lower and upper bounds based on: (1) the proxy group, including New Ulm, (2) the proxy group, excluding New Ulm, and (3) the CAPM estimates for the 15 firms and setting the cost of equity for New Ulm equal to its cost of debt estimate plus the average of the differences between the cost of debt and equity estimates of the 15 firms. Taking this approach, the Commission now finds that the range of reasonable WACC CAPM estimates is 7.12-8.83 percent if the proxy group includes New Ulm; 7.24-9.01 percent if it excludes New Ulm; and 7.17-8.92 percent based on setting the cost of equity for New Ulm equal to its cost of debt estimate plus the average of the differences between the cost of debt and equity estimates of the 15 firms. The highest of upper bound values and the lowest of the lower bound values, provide an overall range of 7.12-9.01 percent.

258. Professor Bowman argues that the CAPM WACC range should be at least three percentage points (300 basis points), if not higher, given the uncertainty with which CAPM input values are estimated (our range is 1.89 percentage points or 189 basis points). However, the Commission finds our CAPM WACC range, 1.89 percentage points (189 basis points), is sufficiently large because that range reflects the lower and upper bounds of our market risk premium. The lower bound of the market premium is constrained by our estimates of the cost of debt, while the upper bound is at the top of the

ranges used by most practitioners. Absent the lower bound constraint, the range would have been much larger reflecting greater uncertainty in the market premium estimate, but including that lower portion and allowing that uncertainty potentially to be reflected in the cost of equity estimates and thus the WACC estimates would be contrary to economic theory. Furthermore, the Commission has DCF WACC estimates on which to rely, in addition to WACC CAPM estimates, as mentioned above.

**(ii) Discounted Cash Flow (DCF) Model**

259. In addition to calculating the cost of equity using CAPM, in the Staff Report staff also calculated the cost of equity using the constant-growth DCF model based upon four different data sources used in the 1990 prescription proceeding. This model incorporates in its calculation of the cost of equity a constant growth rate, which staff calculated using generally available earnings per share (EPS) growth forecasts instead of dividend per share growth forecasts, which are not generally available. Industry analysts routinely rely on ESP forecasts as dividends tend to grow as earnings grow. The most widely used modified version of the general DCF model, the constant growth, or standard, DCF model, calculates the cost of equity as:

$$\text{Cost of Equity} = (\text{Dividends per Share}_1 / \text{Price per Share}_0) + g$$

where Cost of Equity = cost of common stock equity; Dividends per Share<sub>1</sub> = annual dividends per share in period 1; Price per Share<sub>0</sub> = price per share in period 0; g = constant growth rate in dividends per share in the future; and D<sub>1</sub> = (1 + g) times D<sub>0</sub>, the annual dividends per share in period 0.

**(a) DCF Cost of Equity Results**

260. Staff estimated the cost of equity using the constant-growth DCF model for each of the 11 proxy firms that pay common stock dividends and had readily-available, long-run growth rate forecasts. To do this, staff identified the low and the high estimates among the estimates available from four different sources for each firm, determined the midpoint between these two estimates, and used this value as the growth rate in the DCF model for each firm. Based on this analysis, staff determined that the average cost of equity estimate for the 11 firms was 9.90 percent.

261. Staff found, however, that the DCF analysis did not appear to produce reliable estimates

for Windstream and ACS. The published growth rates for these two firms were low, and use of these rates in most cases resulted in cost of equity estimates that were less than the cost of debt estimates. Staff reasoned that these results are questionable because equity is more risky than debt; no rational investor would ever purchase any firm's common stock if that firm's debt is expected to provide a higher rate of return. Staff noted that the Commission had applied a screen designed to remove from consideration those firms for which the cost of debt exceeded the cost of equity when developing estimates of the cost of equity in the 1990 Represcription Order.

262. Staff therefore analyzed the sensitivity of the average of the cost of equity estimates to the estimates for Windstream and ACS. First, staff excluded Windstream and ACS from the sample, leading to an average cost of equity for the nine remaining firms of 11.25 percent, as compared to the average of 9.90 percent when these two firms were included. Second, staff set the cost of equity estimate equal to the cost of debt estimate for the two firms, leading to an average cost of equity estimate of 10.54 percent for the 11 firms. Third, staff calculated the average difference between the cost of equity estimates and the cost of debt estimates for the other nine firms, and added this increment to the cost of debt estimates for Windstream and ACS, to obtain equity estimates for these two firms, leading to an average cost of equity estimate of 11.58 percent for the 11 firms. The Commission agrees with staff's conclusion that where the use of these growth rates produces cost of equity estimates that have no economic meaning, such estimates should be omitted or, at the very least, the impact of including such questionable equity costs estimates on the overall estimate must be taken into account.

263. No party challenges staff's DCF methodology. The Commission therefore adopts the approach applied in the Staff Report to developing estimates for the cost equity based on the DCF model, including the use of sensitivity estimates for Windstream and ACS.

264. Given the revisions the Commission makes above to the estimation of total debt outstanding and interest expense in the Staff Report, and therefore to the estimates of the cost of debt, the results of the above sensitivity analysis change slightly as follows. First, excluding Windstream and ACS from the sample, the average cost of equity for the nine remaining firms remains 11.25 percent, as

compared to an estimate of 9.90 percent when these two firms are included, as these numbers are unaffected by the cost of debt estimates. Second, setting the cost of equity estimate equal to the cost of debt estimate for the two firms now leads to an average cost of equity estimate of 10.47 percent for the 11 firms. Third, calculating the average difference between the cost of equity estimates and the cost of debt estimates for the other nine firms, and adding this increment to the cost of debt estimate for Windstream and ACS, to obtain equity estimates for these two firms, now leads to an average cost of equity estimate of 11.54 percent for the 11 firms.

**(b) DCF WACC Range**

265. Based on this DCF analysis, the Commission finds that the lower bound of a reasonable cost of equity estimate is 10.47 percent, while the upper bound is 11.54 percent. As a rough check on the reasonableness of these upper and lower bound cost of equity estimates, similar to the check in the Staff Report, the Commission notes that the difference between the average cost of debt for the 11 firms, 5.88 percent, and the lower bound cost of equity estimate, 10.47 percent, is 4.59 percentage points (or 459 basis points). Meanwhile, the difference between the average cost of debt for these firms and the upper bound cost of equity estimate, 11.54 percent, is 5.66 percentage points (or 566 basis points). By comparison, these lower and upper bound debt-equity differences are somewhat greater than the 4.39 percentage point (439 basis points) difference between the cost of debt, 8.8 percent, and the cost of equity, 13.19 percent, on which the Commission's current 11.25 percent authorized rate of return is based. And these lower and upper bound equity-debt estimate differences are somewhat less than the average difference between the large company stock return, i.e., S&P 500 companies, and the long-term corporate bond return, from 1926-2010, 5.7 percent (570 basis points). Neither of these comparisons suggests in a compelling way that our lower and upper bound estimates for the cost of equity are unreasonable.

266. Based upon these slight modifications to DCF analysis presented in the Staff Report, the Commission finds that a reasonable lower and the upper bound DCF WACC Range is 8.28 percent to 8.57 percent. As in the Staff Report, this range is based on the three average WACC estimates found by using: (1) DCF estimates for the nine firms excluding Windstream and ACS; (2) DCF estimates for the

nine firms plus the first of the two sensitivity cost of equity estimates described above for these two firms (equity estimates for each equal to debt estimates); and (3) DCF estimates for the nine firms plus the second sensitivity cost of equity estimates described above for these two firms (debt estimates for each plus the average of the debt-equity estimate differences found for the other nine firms). In each case, the growth rates used in the DCF are the mid-point growth rates. In each case, WACC estimates are also based on cost of debt and capital structure estimates that reflect the modifications discussed above to the estimation of total debt outstanding and interest expense.

**(iii) Free Cash Flow Model**

267. The Rural Associations estimate the WACC for a rate-of-return incumbent LEC by dividing an estimate of free cash flow (FCF) by an estimate of firm value, based on rate-of-return incumbent LEC data. GVNW and TCA supported the Rural Associations' FCF approach. While the Rural Associations' approach differs from the standard approach that the Commission uses here to estimate the WACC, and is not set out in our rules, they cannot say, based on the record that this is an unacceptable approach, at least in concept. The Commission is reluctant to dismiss too quickly any approach that could potentially aid the Commission now or in the future to produce better WACC estimates, especially given the difficulty to estimate the WACC for privately-held rate-of-return incumbent LECs. While the Commission does not find this approach to be unacceptable in concept, they do find flaws in the way that it is implemented by the Rural Associations. Thus, the Commission rejects the Rural Associations' estimates.

268. The Rural Associations base firm value, as reflected in the denominator of its WACC formula, on per connection sales prices for rate-of-return and price cap incumbent LEC exchanges for the period from 2008-2012. The Rural Associations develop a range of WACC estimates by varying its estimates of firm value. The Commission finds that this sample of prices is too small, and too many of its prices are for sales that occurred too long ago to provide a reliable basis for estimating firm value for a typical rate-of-return incumbent LEC. In particular, the sample included only one sale price for each year from 2010 to 2012. One observation per year, for the most recent three years, is far too few to obtain

reliable firm valuations for these years, especially given the large variation in sale prices since 2008 (\$1,053 to \$3,205 per connection) and since 2003 (\$1,013 to \$8,000 per connection). As the perceived value of different exchanges varies significantly, as this price variation demonstrates, the value of the information reflected in one observation a year is of limited value for estimating the value of these firms today. Nor does one observation a year provide a strong basis for concluding that the level of these observed prices continues a trend from prior years, or that such a trend reliably could be used to estimate a firm's value today. While the sample included five sales prices for both 2008 and 2009, not only is this number of observations too small to estimate firm value with a high level of confidence, especially given the variation in prices, but these prices are too old to provide reliable estimates of firm value today.

269. The Rural Associations use the FCF WACC formula to develop a range of WACC estimates based on a sample of 633 rate-of-return incumbent LECs. Staff took issue with NECA et al.'s use of the median value of the WACC estimates for these rate-of-return incumbent LECs to establish a range for the WACC. In response, the Rural Associations, including NECA, recalculated its analysis using the average value weighted by access connections. This resulted in a large decrease in the range of WACC estimates (11.75 to 23.49 percent versus 8.69 percent to 17.39 percent).

270. Given that large decrease, the Commission now takes a closer look at the details of the Rural Associations' analysis. Based on our review, there is an enormous variance among the 633 rate-of-return incumbent LEC WACC estimates that the Rural Associations developed. There are many very high and very low WACC estimates. For example, focusing on the estimates based on the Rural Associations' midpoint valuation number, \$1,800 per line, the values of the ten lowest estimates are: -271, -277, -305, -308, -320, -372, -429, -489, -631, and -862 percent. The values of the ten highest estimates, given this midpoint valuation, are: 121, 123, 124, 147, 155, 187, 201, 296, 393, and 838 percent. These high and low numbers, and there are more than just these 20, are implausibly high and low. The Commission is unaware of any wave of bankruptcies among the rate-of-return incumbent LECs, for as long as the Commission's allowable rate of return of 11.25 percent has been effect, and none of the commenters has suggested that the allowable rate of return for these carriers should be as high as

the Rural Associations' estimates. Similarly, a negative expected rate of return, i.e., cost of capital, makes no economic sense.

271. Statistically speaking, and again focusing on the estimates based on the Rural Associations' midpoint valuation number, the median value WACC is 15.66 percent, the weighted average is 11.59 percent, the simple average is 8.64 percent, and the standard deviation relative to the simple average is 83.18 percent, a figure that is approximately 10 times greater than the simple average. Given this dispersion and the implausibly high and low WACC estimates, none of the typical measures of central tendency, i.e., the median, weighted average, or simple average, would provide an overall estimate, or even a range of overall estimates, on which the Commission could rely. There would seem to be too strong of likelihood of large error in many of the individual estimates, and the Commission cannot simply assume that these errors would offset each other by averaging the WACC estimates, or rely on the use of the middle-value estimate (i.e., the median) to remove the impact of these errors. Thus, the Commission rejects the Rural Associations' WACC estimates.

**c. Cost of Preferred Stock**

272. The Commission's rules specify that the WACC calculations incorporate the cost of preferred stock which is stock that entitles its holders to receive a share of corporate assets before common stockholders do, in the event of liquidation of the firm, and offers other benefits, such as priority when dividends are paid. Staff recommended in the Staff Report that the Commission waive or eliminate the requirement to include the cost of preferred stock in the WACC calculation because the cost of preferred stock is either not available to us or not publicly reported. This approach is consistent with the Commission's 1990 prescription which did not factor in the cost of preferred stock. In the Staff Report, staff explained that including the cost of preferred stock would not significantly alter the WACC calculation because the proxy firms do not typically raise capital through the issuance of preferred stock and that preferred stock is only a small share of the capital structure for the proxies that have such stock. The Commission agrees for the reasons articulated by staff explained above. Further, no commenters filed in opposition to staff's approach. Accordingly, the Commission finds good cause exists to waive the

requirement to calculate the WACC based on the cost of preferred stock.

**d. WACC Results**

273. Appendices J & K to this Order shows the WACCs resulting from using both CAPM and DCF, together with the component values of each model and the estimates of the cost of debt and capital structure.

**e. Establishing the WACC Zone of Reasonableness**

274. In determining the authorized rate of return, the Commission's starting point is to establish a zone of reasonable financial model-based estimates of the overall WACC. After identifying this WACC zone of reasonableness, the Commission may determine, based on policy considerations, where to prescribe the unitary rate of return. To determine a WACC zone of reasonableness, staff recommended comparing the range of WACCs produced when the cost of equity is determined using CAPM with varying market premiums, and the range produced when the cost of equity is determined using DCF.

275. The Commission finds above that a reasonable range for CAPM WACC estimates is 7.12 to 9.01 percent, while a reasonable range for DCF WACC estimates is 8.28 percent to 8.57 percent. Taken together, the overall range for reasonable WACC estimates is 7.12 to 9.01 percent, if there is no reason to believe that either model provides better estimates. The record is critical of the CAPM analysis in the Staff Report, while the DCF analysis is largely unchallenged. In response to these criticisms, the Commission adjusted the CAPM analysis to produce more reliable estimates. In particular, the Commission revises the estimate of the risk-free rate, and account for what might be an unreliable beta estimate for the proxy New Ulm. Nevertheless, given the record, the Commission would be reluctant to select a rate of return that is below the DCF WACC range. The bottom of the WACC range relies on a truncated confidence interval that might not reflect a precise accounting of the premium in terms of the rate of return that equity holders require in comparison to debtholders. Even without this concern and that record, it would be difficult to prescribe a rate of return below the WACC DCF range given that both the DCF and the CAPM have different strengths and weaknesses and the value of performing both analyses is

that these models have the potential to provide corroborating evidence.

**f. Prescribing a New Authorized Rate of Return**

276. The reasonable range of WACC estimates discussed above are based on the cost of capital which serves as a useful and reliable starting point in rate of return prescription. The Commission, however, may consider other relevant factors as well. It is well established that rate of return prescription under the Act's "just and reasonable" standard requires a balancing of ratepayer and shareholder interests. A rate-of-return carrier must be allowed the opportunity to earn a return that is high enough to maintain the financial integrity of the company and to attract new capital. At the same time, to be reasonable, the rate of return must not produce excessive rates at the expense of the ratepayer. Courts have recognized that there is a zone of reasonableness within which reasonable rates may fall, and that the regulatory agencies are entitled to exercise judgment in selecting a rate of return within that zone. In general, the zone of reasonableness balances financial interests of the regulated company and relevant public interests. The Commission has substantial discretion when setting the authorized rate of return, and may consider a broad array of evidence and methodologies in prescribing the authorized rate of return. The Commission may also consider non-cost policy considerations in setting the rate of return.

277. The Commission is particularly mindful of the economic impact prescription will have on rate-of-return incumbent LECs. As Professor Bowman notes, companies subject to regulation face regulatory risk which increases the cost of capital. In this regard, the Commission agrees with Professor Bowman's argument that as a consequence of the asymmetry of social costs and benefits, and the uncertainties in the estimates of the true cost of capital, they should err on the high side when establishing the rate of return zone of reasonableness to minimize expected losses in social welfare through investment effects. Accordingly, expanding the zone of reasonableness above the top of the reasonable WACC estimates is supported in the record.

278. The Commission concludes that they should expand the upper end of the rate of return zone of reasonableness beyond the WACC estimates based on policy considerations and adopt the rate of return from the upper end of this zone. First, by expanding the zone of reasonableness, the Commission

provides an additional cushion for rate-of-return incumbent LECs that may have a relatively high cost of capital compared to our proxies. There are hundreds of rate-of-return incumbent LECs. Some will have a relatively high and some a relatively low cost of capital. At the same time, the Commission adopts an authorized rate of return that applies to all of these carriers. To maximize the likelihood that the unitary rate of return is fully compensatory, even for firms with a relatively high cost of capital, the Commission expands the zone of reasonableness above the top of the range of WACC estimates developed above. Second, the Commission adds this cushion to the zone to account for regulatory lag—the time between recognition of the need for regulatory change in light of changing circumstances, in this case the need to prescribe a different rate of return, as capital markets change significantly, and regulatory action, in this case actually prescribing a new rate of return. The Commission therefore adds about three-quarters of a percentage point to the top of the WACC range developed above to account for these two factors, expanding the overall zone of reasonableness for the rate of return estimates to 7.12 to 9.75 percent.

279. The Commission notes that the WACC is supposed to compensate equity holders and debtholders who provide the funds used to finance the firm's assets. Given a rate of return set equal to 9.75 percent, an average capital structure based on our estimates of 54.34 percent debt, and a cost of debt based on our estimates of 5.87 percent, the implied cost of equity is 14.37percent. The Commission finds that not only is the WACC of 9.75 percent high enough adequately to compensate the firm's debtholders, but the implied rate of return on equity also provides equity holders with the opportunity to earn a reasonable rate of return on their investment. As support for our finding that a 9.75 percent rate of return is reasonable, the Commission examines some benchmarks.

280. The difference between the implied cost of equity and the cost of debt estimate is 8.5 percentage points (850 basis points). By comparison, this 850 basis point difference exceeds the 439 basis point difference between the estimates of the cost of debt, 8.8 percent, and the cost of equity, 13.19 percent, on which the Commission's current 11.25 percent authorized rate of return is based. That rate of return was developed in 1990 based on estimates of the cost of debt and equity that would have reflected investors' perception of incumbent LEC risks and the conditions in the financial market at the time. So

this benchmark provides a useful rough check on our estimates. The 850 basis point difference also exceeds the average difference between the large company stock return, i.e., Standard & Poor's 500 (S&P 500) index companies, and the long-term corporate bond return, from 1926-2010, 570 basis points. The 850 basis point difference is not as large as the difference between small company stock returns and the long-term corporate bond returns, from 1926-2010, 10.5 percent (1005 basis points). However, the difference between the average cost of debt estimate for the six Publicly-Traded RLEC Proxies that have access to loans made through rural-company programs (such as those administered by the Rural Utilities Service and CoBank), 4.38 percent, and the implied cost of equity for this smaller group, which is 14.15 percent, given this group's capital structure estimate of 45.02 percent debt, is 977 basis points, which is reasonably close to the 1005 historical basis points difference for small companies. The Commission uses this small company benchmark while pointing out that it might be true that, as other analysis suggests, returns to small companies are no longer statistically different from those of larger companies. If so, then this small company benchmark does not provide any insights beyond the benchmark for larger firms, which then suggests in an even more compelling way that the WACC of 9.75 percent will provide reasonable compensation to owners of these smaller rate-of-return incumbent LECs. Collectively, these benchmarks provide evidence that a WACC and thus an allowable rate of return of 9.75 percent provides a reasonable level of compensation.

**g. Specific Rates of Return**

281. Tribally-Owned Carrier Specific Rate of Return. In the USF/ICC Transformation FNPRM, the Commission sought comment on how to account for Tribally-owned carriers in this prescription, and whether a different rate of return is warranted for these carriers. Gila River, NTTA and MATI argue in favor a separate, higher, rate of return for Tribally-owned carriers operating in Tribal areas due to illiquidity of Tribal assets and inability to access credit and capital. Gila River further argues that low income population on Tribal lands, reliance on Rural Utilities Service loans and universal service support, lack of infrastructure on Tribal lands, and unique “environmental and cultural preservation review processes” warrant a separate rate of return for Tribally-owned carriers. The purpose of the

unitary rate of return is to reflect the industry-wide rate of return. Section 65.102(b) provides a process for carriers such as Gila River to apply for exclusion from unitary treatment and receive individual treatment in determining the authorized rate of return. A petition for exclusion from unitary treatment must plead with particularity the exceptional facts and circumstances that justify individual treatment. The showing shall include a demonstration that the exceptional facts and circumstances are not of transitory effect, such that exclusion for a period of a least two years is justified. To the extent a Tribally-owned carrier or any other rate-of-return regulated carrier contends that a specific, non-unitary, rate of return is justified, it can seek an exclusion via the process outlined in section 65.102(b). As stated above, such applications must be plead with particularity and no rate-of-return incumbent LEC has petitioned for exclusion or otherwise met this burden. Accordingly, at this time, the Commission declines to grant an exception to the authorized unitary rate of return for Tribally-owned carriers as the specific circumstances surrounding each carrier may vary substantially.

## **6. Implementing the New Rate of Return**

282. The Commission has authority under section 205 to prescribe a 9.75 percent unitary rate of return effective immediately. The Commission recognizes, however, that for almost 25 years rate-of-return carriers have made significant infrastructure investments on which they have had the opportunity to earn a rate of return of 11.25 percent until now, and that represeting the rate of return will have a financial impact on these carriers. ICORE proposes that if the Commission lowers the rate of return, it should do so “in the most gradual and least disruptive manner possible.” The Moss Adams companies propose that “any changes that the FCC makes should be measured and spread over time.” USTelecom and NTCA recognize that rate represetion is “essential to a broadband reform effort” and suggest a multi-year transition to 9.75 percent. The Commission agrees. The Commission recognizes that rate-of-return incumbent LECs have been subject to significant regulatory changes in recent years, and that such changes are occurring at a time when these carriers are attempting to transition their networks and service offerings to a broadband world. At the same time, the Commission finds that they must represet the almost 25-year old rate of return to meet our statutory obligations. To minimize the immediate financial

impacts that represcription may impose on carriers, the Commission adopts, for the first time, a transitional approach to represcription.

283. Under this transitional approach, as proposed by USTelecom and NTCA, the 11.25 percent rate of return will be reduced by 25 basis points per year until the Commission reach the represcribed 9.75 percent rate of return. For administrative simplicity, the Commission choose July 1, 2016 as the effective date for the initial transitional rate of return of 11.0 percent followed by subsequent annual 25 basis point reductions consistent with the table below until July 1, 2021 when the 9.75 percent rate of return the Commission represcribes today shall be effective.

<b>Effective Date of Rate of Return</b>	<b>Authorized Rate of Return</b>
July 1, 2016	11.0%
July 1, 2017	10.75%
July 1, 2018	10.5%
July 1, 2019	10.25%
July 1, 2020	10.0%
July 1, 2021	9.75%

#### **IV. PROCEDURAL MATTERS**

##### **A. Paperwork Reduction Act Analysis**

284. This document contains new information collection requirements subject to the PRA. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this proceeding. In addition, the Commission notes that pursuant to the Small Business Paperwork Relief Act of 2002, they previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees. The Commission describes impacts that might affect small businesses, which includes most businesses with fewer than 25 employees, in the Final Regulatory

Flexibility Analysis (FRFA) in Appendix B, infra.

**B. Final Regulatory Flexibility Analysis**

285. As required by the Regulatory Flexibility Act of 1980 (RFA), as amended, Initial Regulatory Flexibility Analyses (IRFAs) were incorporated in the Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking (USF/ICC Transformation NPRM), in the Notice of Inquiry and Notice of Proposed Rulemaking (USF Reform NOI/NPRM), in the Notice of Proposed Rulemaking (Mobility Fund NPRM), Order and Further Notice of Proposed Rulemaking (USF/ICC Transformation Order or FNPRM), and in the Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking (April 2014 Connect America FNPRM) for this proceeding. The Commission sought written public comment on the proposals in the USF/ICC Transformation FNPRM and April 2014 Connect America FNPRM, including comment on the IRFA. The Commission did not receive comments on the USF/ICC Transformation FNPRM IRFA or April 2014 Connect America FNPRM IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

**1. Need for, and Objective of, the Order**

286. In the Report and Order, the Commission establishes a new forward-looking, efficient mechanism for the distribution of support in rate-of-return areas. Specifically, the Commission adopts a voluntary path under which rate-of-return carriers may elect model-based support for a term of 10 years in exchange for meeting defined build-out obligations. The Commission emphasizes the voluntary nature of this mechanism; no carrier will be required to take model-based support, and the cost model has been adjusted in multiple ways over more than a year to take into account the circumstances of rate-of-return carriers. The Commission will make available up to an additional \$150 million annually from existing high-cost reserves to facilitate this voluntary path to the model over the next decade.

287. The Commission also reforms the existing mechanisms for the distribution of support in rate-of-return areas for those carriers that do not elect to receive model-based support. The Commission makes technical corrections to modernize our existing interstate common line support (ICLS) rules to

provide support in situations where the customer no longer subscribes to traditional regulated local exchange voice service, i.e. stand-alone broadband. Going forward, this reformed mechanism will be known as Connect America Fund Broadband Loop Support (CAF BLS). This simple, forward-looking change to the existing mechanism will provide support for broadband-capable loops in an equitable and stable manner, regardless of whether the customer chooses to purchase traditional voice service, a bundle of voice and broadband, or only broadband. The Commission expects this approach will provide carriers, including those that no longer receive high cost loop support (HCLS), with appropriate support going forward to invest in broadband networks, while not disrupting past investment decisions.

288. One of the core principles of reform since 2011 has been to ensure that support is provided in the most efficient manner possible, recognizing that ultimately American consumers and businesses pay for the universal service fund (USF). The Commission continues to move forward with our efforts to ensure that companies do not receive more support than is necessary and that rate of return carriers have sufficient incentive to be prudent and efficient in their expenditures, and in particular operating expenses. Therefore, the Commission adopts a method to limit operating costs eligible for support under rate-of-return mechanisms, based on a proposal submitted by the carriers. The Commission also adopts measures that will limit the extent to which USF support is used to support capital investment by those rate-of-return carriers that are above the national average in broadband deployment in order to help target support to those areas with less broadband deployment. Lastly, to ensure disbursed high-cost support stays within the established budget for rate-of-return carriers, the Commission adopts a self-effectuating mechanism to control total support distributed pursuant to the HCLS and CAF-BLS mechanisms.

289. In 2011, the Commission also stressed the need to “require accountability from companies receiving support to ensure that public investments are used wisely to deliver intended results.” To this end, the Commission adopts deployment obligations that can be measured and monitored for all rate-of-return carriers, while tailoring those obligations to the unique circumstances of individual carriers. Those obligations will be individually sized for each carrier not electing model

support, based on the extent to which it has already deployed broadband and its forecasted CAF BLS, taking into account the relative amount of depreciated plant and the density characteristics of individual carriers.

290. Another core tenet of reform adopted by the Commission in 2011, and unanimously reaffirmed in 2014, was to target support to areas that the market will not serve absent subsidy. To direct universal service support to those areas where it is most needed, the Commission adopts a rule prohibiting rate-of-return carriers from receiving CAF-BLS support in those census blocks that are served by a qualifying unsubsidized competitor. The Commission adopts a robust challenge process to determine which areas are in fact served by a qualifying unsubsidized competitor. Carriers may elect one of several options for disaggregating support for those areas found to be competitive. Any support reductions resulting from implementation of this rule will be more effectively targeted to support existing and new broadband infrastructure in areas lacking a competitor.

291. The Commission also addresses cost allocation and tariff-related issues raised by adoption of the reforms to high-cost support adopted in this Order for the provision of broadband-only loops. The Commission first creates a new service category known as the “Consumer Broadband-Only Loop” category, which will include the costs of the consumer broadband-only loop facilities that today are recovered through special access rates. Second, the Commission requires a carrier to move the costs of consumer broadband-only loops from the special access category to the new Consumer Broadband-Only Loop category. These actions will segregate the broadband-only loop investment and expenses from other special access costs currently included in the special access category and preclude double recovery of any costs assigned to the Consumer Broadband-Only Loop category.

292. The Commission will allow a rate-of-return carrier electing model-based support to assess a wholesale Consumer Broadband-Only Loop charge that does not exceed \$42 per line per month. This rate cap allows a carrier the opportunity to recover its costs not covered by the model, while limiting the ability of a carrier to engage in a price squeeze against a non-affiliated ISP offering retail broadband service. The retail service provided to the end-user customer is not constrained by this limitation.

Carriers electing model-based support that participate in the NECA common line tariff will be allowed to use the NECA tariff to offer their Consumer Broadband-Only Loop service to obtain the administrative benefits of a single tariff filing. They will not be eligible to participate in the NECA common line pooling mechanism, however, because the model-based support mechanism is inconsistent with cost pooling.

293. A carrier that does not elect model-based support will have an interstate revenue requirement for its Consumer Broadband-Only Loop category. The projected Consumer Broadband-Only Loop revenue requirement will be reduced by the projected amount of CAF BLS attributed to that category in accordance with the procedures in Part 54. The remaining projected revenue requirement is the basis for developing the rates the carrier may assess, based on projected loops. Finally, providing support to consumer broadband-only loops likely will result in the migration of some end users from their current voice/broadband offerings thereby affecting the careful balancing of the recovery mechanism adopted in the USF/ICC Transformation Order. To insure that our actions today do not unintentionally increase CAF-ICC support, the Commission requires that rate-of-return carriers impute an amount equal to the ARC charge they would assess on voice/broadband lines to their supported consumer broadband-only lines. Second, the Commission clarifies that a carrier must reflect any revenues recovered for use of the facilities previously used to provide the supported service as double recovery in its Tariff Review Plans, which will reduce the amount of CAF ICC it will receive.

294. Finally, the Commission takes action to modify our existing reporting requirements in light of lessons learned from their implementation. The Commission revises eligible telecommunications carriers' (ETC) annual reporting requirements to align better those requirements with our statutory and regulatory objectives. The Commission concludes that the public interest will be served by eliminating the requirement to file a narrative update to the five-year plan. Instead, the Commission adopts narrowly-tailored reporting requirements regarding the location of new deployment offering service at various speeds, which will better enable the Commission to determine on an annual basis how high-cost support is being used to "improve broadband availability, service quality, and capacity at the smallest geographic

area possible.”

295. In the Order and Order on Reconsideration, the Commission represcribes the currently authorized rate of return from 11.25 percent to 9.75. The Commission explains that a rate of return higher than necessary to attract capital to investment results in excessive profit for rate-of-return carriers and unreasonably high prices for consumers. It also inefficiently distorts carrier operations, resulting in waste in the sense that, but for these distortions, more services, including broadband services, would be provided at the same cost. Relying primarily on the methodology and data contained in a Commission staff report and public comments, the Commission identifies a more robust zone of reasonableness and adopt a new rate of return at the upper end of this range at 9.75 percent. As part of its estimation of the rate of return, the Commission revises its rule for calculating the cost of debt, an input in the cost of capital formula used to estimate the rate of return, to account for an overstatement of the interest expense contained in the rules. The new rate of return of 9.75 percent will be phased-in gradually over a six-year period.

## **2. Summary of Significant Issues Raised by Public Comments in Response to the IRFA**

296. There were no comments raised that specifically addressed the proposed rules and policies presented in the USF/ICC Transformation FNRPM IRFA or April 2014 Connect America FNPRM IRFA. Nonetheless, the Commission considered the potential impact of the rules proposed in the IRFA on small entities and reduced the compliance burden for all small entities in order to reduce the economic impact of the rules enacted herein on such entities.

## **3. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration**

297. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rule(s) as a result of those comments.

298. The Chief Counsel did not file any comments in response to the proposed rule(s) in this proceeding.

#### **4. Description and Estimate of the Number of Small Entities to Which the Rules Would Apply**

299. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act. A small-business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

#### **5. Total Small Entities**

300. Our proposed action, if implemented, may, over time, affect small entities that are not easily categorized at present. The Commission therefore describes here, at the outset, three comprehensive, statutory small entity size standards. First, nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA, which represents 99.7% of all businesses in the United States. In addition, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.” Nationwide, as of 2007, there were approximately 1,621,215 small organizations. Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.” Census Bureau data for 2011 indicate that there were 90,056 local governmental jurisdictions in the United States. The Commission estimates that, of this total, as many as 89,327 entities may qualify as “small governmental jurisdictions.” Thus, the Commission estimates that most governmental jurisdictions are small.

#### **6. Broadband Internet Access Service Providers**

301. The rules adopted in the Order apply to broadband Internet access service providers. The

Economic Census places these firms, whose services might include Voice over Internet Protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider's own telecommunications facilities (e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers, which has an SBA small business size standard of 1,500 or fewer employees. These are also labeled "broadband." The latter are within the category of All Other Telecommunications, which has a size standard of annual receipts of \$32.5 million or less. These are labeled non-broadband. According to Census Bureau data for 2007, there were 3,188 firms in the first category, total, that operated for the entire year. Of this total, 3,144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1,000 employees or more. For the second category, the data show that 2,383 firms operated for the entire year. Of those, 2,346 had annual receipts below \$32.5 million per year. Consequently, the Commission estimates that the majority of broadband Internet access service provider firms are small entities.

302. The broadband Internet access service provider industry has changed since this definition was introduced in 2007. The data cited above may therefore include entities that no longer provide broadband Internet access service, and may exclude entities that now provide such service. To ensure that this FRFA describes the universe of small entities that our action might affect, the Commission discusses in turn several different types of entities that might be providing broadband Internet access service. The Commission notes that, although the Commission has no specific information on the number of small entities that provide broadband Internet access service over unlicensed spectrum, the Commission includes these entities in our Final Regulatory Flexibility Analysis.

## **7. Wireline Providers**

303. Incumbent Local Exchange Carriers (Incumbent LECs). Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent LEC services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission

data, 1,307 carriers reported that they were incumbent LEC providers. Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.

Consequently, the Commission estimates that most providers of incumbent LEC service are small businesses that may be affected by rules adopted pursuant to the Order.

304. Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services. Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees. In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees. In addition, 72 carriers have reported that they are Other Local Service Providers. Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and other local service providers are small entities that may be affected by rules adopted pursuant to the Order.

305. The Commission has included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.” The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope. The Commission has therefore included small incumbent LECs in this RFA analysis, although the Commission emphasizes that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

306. Interexchange Carriers. Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 359 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by rules adopted pursuant to the Order.

307. Operator Service Providers (OSPs). Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by rules adopted pursuant to the Order.

308. Prepaid Calling Card Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards. Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees. Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by rules adopted pursuant to the Order.

309. Local Resellers. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 213 carriers have reported that they are engaged in the

provision of local resale services. Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted pursuant to the Order.

310. Toll Resellers. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services. Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees. Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by rules adopted pursuant to the Order.

311. Other Toll Carriers. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage. Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees. Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by the rules and policies adopted pursuant to the Order.

312. 800 and 800-Like Service Subscribers. Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (toll free) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use. According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,588,687; the number

of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736. The Commission does not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, the Commission estimates that there are 7,860,000 or fewer small entity 800 subscribers; 5,588,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

### **8. Wireless Providers – Fixed and Mobile**

313. The broadband Internet access service provider category covered by this Order may cover multiple wireless firms and categories of regulated wireless services. Thus, to the extent the wireless services listed below are used by wireless firms for broadband Internet access service, the proposed actions may have an impact on those small businesses as set forth above and further below. In addition, for those services subject to auctions, the Commission notes that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility events, unjust enrichment issues are implicated.

314. Wireless Telecommunications Carriers (except Satellite). Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category. Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. For the category of Wireless Telecommunications Carriers (except Satellite), census data for 2007 show that there were 1,383 firms that operated for the entire year. Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1,000 employees or more. Since all firms with fewer than 1,500 employees are considered small, given the total employment in the sector, the Commission estimates that the vast majority of wireless firms are small.

315. Wireless Communications Services. This service can be used for fixed, mobile,

radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years. The SBA has approved these definitions.

316. 218-219 MHz Service. The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous two years. In the 218-219 MHz Report and Order and Memorandum Opinion and Order, 64 FR 59656, November 3, 1999, the Commission established a small business size standard for a “small business” as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed \$15 million for the preceding three years. A “very small business” is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not to exceed \$3 million for the preceding three years. These size standards will be used in future auctions of 218-219 MHz spectrum.

317. 2.3 GHz Wireless Communications Services. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (“WCS”) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years. The SBA has approved these definitions. The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

318. 1670–1675 MHz Services. This service can be used for fixed and mobile uses, except

aeronautical mobile. An auction for one license in the 1670–1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

319. Wireless Telephony. Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite). Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees. According to Commission data, 413 carriers reported that they were engaged in wireless telephony. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Therefore, a little less than one third of these entities can be considered small.

320. Broadband Personal Communications Service. The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a “small business” for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous calendar years. For F-Block licenses, an additional small business size standard for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years. These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA. No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks. On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22. Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

321. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status. Subsequent events concerning Auction 35, including judicial and agency determinations,

resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses. On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71. Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses. On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78. Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.

322. Specialized Mobile Radio Licenses. The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years. The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years. The SBA has approved these small business size standards for the 900 MHz Service. The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band. A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.

323. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the \$15 million size standard. In an auction completed on December

5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded. Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

324. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. The Commission does not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, the Commission does not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard. The Commission assumes, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

325. Lower 700 MHz Band Licenses. The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits. The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years. A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years. Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—“entrepreneur”—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA approved these small size standards. An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329

licenses. A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses. Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses. On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

326. In 2007, the Commission reexamined its rules governing the 700 MHz band in the 700 MHz Second Report and Order, 72 FR 48814, August 24, 2007. An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block. Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years) won 49 licenses. Thirty three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) won 325 licenses.

327. Upper 700 MHz Band Licenses. In the 700 MHz Second Report and Order, the Commission revised its rules regarding Upper 700 MHz licenses. On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block. The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

328. 700 MHz Guard Band Licensees. In 2000, in the 700 MHz Guard Band Order, 65 FR 17594, April 4, 2000, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments. A small business in this service is an entity that, together with its affiliates and

controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years. Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years. SBA approval of these definitions is not required. An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000. Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.

329. Cellular Radiotelephone Service. Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico. Bidding credits for designated entities were not available in Auction 77. In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling \$25,002.

330. Private Land Mobile Radio (“PLMR”). PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee’s primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, the Commission uses the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons. The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. The Commission notes that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR

licensees under the standards applied to the particular industry subsector to which the licensee belongs.

331. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. The Commission notes that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

332. Rural Radiotelephone Service. The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service. A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS). In the present context, the Commission will use the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons. There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

333. Air-Ground Radiotelephone Service. The Commission has previously used the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons. There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and under that definition, the Commission estimates that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$40 million. A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million. These definitions were approved by the SBA. In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning

bidders claimed small business status.

334. Aviation and Marine Radio Services. Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees. Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, the Commission estimates that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars. There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards and may be affected by rules adopted pursuant to the Order.

335. Advanced Wireless Services (AWS) (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)). For the AWS-1 bands, the Commission has defined a “small business”

as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million. For AWS-2 and AWS-3, although the Commission does not know for certain which entities are likely to apply for these frequencies, they note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.

336. 3650–3700 MHz band. In March 2005, the Commission released a Report and Order and Memorandum Opinion and Order that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (i.e., 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, the Commission estimates that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

337. Fixed Microwave Services. Microwave services include common carrier, private-operational fixed, and broadcast auxiliary radio services. They also include the Local Multipoint Distribution Service (LMDS), the Digital Electronic Message Service (DEMS), and the 24 GHz Service, where licensees can choose between common carrier and non-common carrier status. At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 135 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. For purposes of the FRFA, the Commission will use the SBA’s definition applicable to Wireless Telecommunications Carriers (except satellite)—i.e., an

entity with no more than 1,500 persons. Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 36,708 common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. The Commission notes, however, that the common carrier microwave fixed licensee category includes some large entities.

338. Offshore Radiotelephone Service. This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico. There are presently approximately 55 licensees in this service. The Commission is unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for the category of Wireless Telecommunications Carriers (except Satellite). Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees. Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus, under this category and the associated small business size standard, the majority of firms can be considered small.

339. 39 GHz Service. The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous calendar years. An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years. The SBA has approved these small business size standards. The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small

entities that may be affected by rules adopted pursuant to the Order.

340. Broadband Radio Service and Educational Broadband Service. Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)). In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years. The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, the Commission estimates that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities. After adding the number of small business auction licensees to the number of incumbent licensees not already counted, the Commission finds that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules.

341. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas. The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid. Auction 86 concluded in 2009 with the sale of 61 licenses. Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one

bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

342. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,436 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities. Thus, the Commission estimates that at least 2,336 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies." The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services the Commission must, however, use the most current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts. According to Census Bureau data for 2007, there were a total of 996 firms in this category that operated for the entire year. Of this total, 948 firms had annual receipts of under \$10 million, and 48 firms had receipts of \$10 million or more but less than \$25 million. Thus, the majority of these firms can be considered small.

343. Narrowband Personal Communications Services. In 1994, the Commission conducted an auction for Narrowband PCS licenses. A second auction was also conducted later in 1994. For purposes of the first two Narrowband PCS auctions, "small businesses" were entities with average gross revenues for the prior three calendar years of \$40 million or less. Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses. To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the Narrowband PCS Second Report and Order, 65 FR 35843, June

6, 2000. A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million. The SBA has approved these small business size standards. A third auction was conducted in 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses. Three of these claimed status as a small or very small entity and won 311 licenses.

344. Paging (Private and Common Carrier). In the Paging Third Report and Order, 64 FR 33762, June 24, 1999, the Commission developed a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments. A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA has approved these small business size standards. According to Commission data, 291 carriers have reported that they are engaged in Paging or Messaging Service. Of these, an estimated 289 have 1,500 or fewer employees, and two have more than 1,500 employees. Consequently, the Commission estimates that the majority of paging providers are small entities that may be affected by our action. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold. Fifty-seven companies claiming small business status won 440 licenses. A subsequent auction of MEA and Economic Area (“EA”) licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold. One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses. A fourth auction, consisting of 9,603 lower and upper paging band licenses was held in the year 2010. Twenty-nine bidders claiming

small or very small business status won 3,016 licenses.

345. 220 MHz Radio Service – Phase I Licensees. The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, the Commission applies the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). Under this category, the SBA deems a wireless business to be small if it has 1,500 or fewer employees. The Commission estimates that nearly all such licensees are small businesses under the SBA’s small business size standard that may be affected by rules adopted pursuant to the Order.

346. 220 MHz Radio Service – Phase II Licensees. The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the 220 MHz Third Report and Order, 62 FR 15978, April 3, 1997, the Commission adopted a small business size standard for “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments. This small business size standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. A “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years. The SBA has approved these small business size standards. Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998. In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.

## **9. Satellite Service Providers**

347. Satellite Telecommunications Providers. Two economic census categories address the satellite industry. The first category has a small business size standard of \$30 million or less in average annual receipts, under SBA rules. The second has a size standard of \$30 million or less in annual receipts.

348. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.” For this category, Census Bureau data for 2007 show that there were a total of 570 firms that operated for the entire year. Of this total, 530 firms had annual receipts of under \$30 million, and 40 firms had receipts of over \$30 million. Consequently, the Commission estimates that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

349. The second category of Other Telecommunications comprises, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.” For this category, Census Bureau data for 2007 show that there were a total of 1,274 firms that operated for the entire year. Of this total, 1,252 had annual receipts below \$25 million per year. Consequently, the Commission estimates that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

## **10. Cable Service Providers**

350. Because section 706 requires us to monitor the deployment of broadband using any technology, the Commission anticipates that some broadband service providers may not provide telephone service. Accordingly, the Commission describes below other types of firms that may provide

broadband services, including cable companies, MDS providers, and utilities, among others.

351. Cable and Other Program Distributors. Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.” The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services the Commission must, however, use current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts. According to Census Bureau data for 2007, there were a total of 2,048 firms in this category that operated for the entire year. Of this total, 1,393 firms had annual receipts of under \$10 million, and 655 firms had receipts of \$10 million or more. Thus, the majority of these firms can be considered small.

352. Cable Companies and Systems. The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission’s rules, a “small cable company” is one serving 400,000 or fewer subscribers, nationwide. Industry data that there are currently 4,600 active cable systems in the United States. Of this total, all but nine cable operators are small under the 400,000 subscriber size standard. In addition, under the Commission’s rules, a “small system” is a cable system serving 15,000 or fewer subscribers. Current Commission records show 4,945 cable systems nationwide. Of this total, 4,380 cable systems have less than 20,000 subscribers, and 565 systems have 20,000 or more subscribers, based on the same records. Thus, under this standard, the Commission estimates that most cable systems are small entities.

353. Cable System Operators. The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an

affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.” The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate. Based on available data, the Commission finds that all but ten incumbent cable operators are small entities under this size standard. The Commission notes that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, and therefore they are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

354. The open video system (“OVS”) framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers. The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services, OVS falls within the SBA small business size standard covering cable services, which is “Wired Telecommunications Carriers.” The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year. Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1,000 employees or more. Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the Order. In addition, the Commission notes that they have certified some OVS operators, with some now providing service. Broadband service providers (“BSPs”) are currently the only significant holders of OVS certifications or local OVS franchises. The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

## **11. Electric Power Generators, Transmitters, and Distributors**

355. Electric Power Generators, Transmitters, and Distributors. The Census Bureau defines an industry group comprised of “establishments, primarily engaged in generating, transmitting, and/or distributing electric power. Establishments in this industry group may perform one or more of the following activities: (1) operate generation facilities that produce electric energy; (2) operate transmission systems that convey the electricity from the generation facility to the distribution system; and (3) operate distribution systems that convey electric power received from the generation facility or the transmission system to the final consumer.” The SBA has developed a small business size standard for firms in this category: “A firm is small if, including its affiliates, it is primarily engaged in the generation, transmission, and/or distribution of electric energy for sale and its total electric output for the preceding fiscal year did not exceed 4 million megawatt hours.” Census Bureau data for 2007 show that there were 1,174 firms that operated for the entire year in this category. Of these firms, 50 had 1,000 employees or more, and 1,124 had fewer than 1,000 employees. Based on this data, a majority of these firms can be considered small.

## **12. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities**

356. In the Report and Order, the Commission requires all rate-of-return ETCs to submit annually a list of the geocoded locations to which they have newly deployed facilities capable of delivering broadband in lieu of annual narrative reporting. To lessen the burden, in the Report and Order the Commission directs the Bureau to work with USAC to develop an online portal that will enable carriers to submit the requisite information on a rolling basis throughout the year as construction is completed and service becomes commercially available, with any final submission no later than March 1 of the following year.

## **13. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered**

357. The RFA requires an agency to describe any significant alternatives that it has considered

in reaching its proposed approach, which may include (among others) the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities. The Commission has considered all of these factors subsequent to receiving substantive comments from the public and potentially affected entities. The Commission has considered the economic impact on small entities, as identified in comments filed in response to the USF/ICC Transformation NPRM and FNRPM and their IRFAs, in reaching its final conclusions and taking action in this proceeding.

358. The rules that the Commission adopts in the Report and Order and Order and Order on Reconsideration take steps to provide greater certainty and flexibility to rate-of-return carriers, many of which are small entities. For example, the Commission adopts a voluntary path for rate-of-return carriers to elect to receive model-based support in exchange for deploying broadband-capable networks to a pre-determined number of eligible locations. The Commission recognizes that permitting rate-of-return carriers to elect to receive specific and predictable monthly support amounts over the ten years will enhance the ability of these carriers to deploy broadband throughout the term and free them from the administrative burdens associated with doing cost studies to receive high-cost support. Additionally, to provide further flexibility, the Commission adopts even-spaced annual interim milestones over the 10-year term for rate-of-return carriers electing model-based support, and decline to set interim milestones requiring deployment of speeds at or above 25/3 Mbps. By doing so, the Commission minimizes deployment burdens by permitting flexibility in design and deployment of broadband networks. The Commission also concludes that rate-of-return carriers receiving model-based support should have some flexibility in their deployment obligations to address unforeseeable challenges to meeting these obligations. Therefore, the Commission permitted rate-of-return carriers to deploy to 95 percent of the required number of locations by the end of the 10-year term.

359. In the Report and Order, the Commission also removes a deterrent for rate-of-return carriers to offer standalone broadband service by making technical rule changes to our existing ICLS rules to support the provision of broadband service to consumers in areas with high loop-related costs (including small carriers and those that wish to transfer or acquire parts of exchanges), without regard to whether the loops are also used for traditional voice services. By supporting broadband lines, the Commission removes potential regulatory barriers to taking steps to offer new IP-based services in innovative ways, and provides rate-of-return carriers strategic flexibility in their service offerings.

360. The Commission adopts a mechanism to limit operating costs eligible for support under HCLS and CAF BLS to encourage efficient spending by rate-of-return carriers and increase the amount of universal service support available for investment in broadband-capable facilities. However, to soften the impact of this expense limitation, the Commission concludes that a transition is appropriate to allow carriers time to adjust their operating expenditures. The Commission also adopts a capex allowance proposed by the rate-of-return industry associations to help target support to those areas with less broadband deployment so that carriers serving those areas have the opportunity and support to catch up to the average level of broadband deployment in areas served by rate-of-return carriers. The Commission also concludes that if any rate-of-return carrier believes that the support it receives is insufficient, it may seek a waiver of the Commission's rules to obtain the flexibility and certainty it needs to continue operating its business.

361. Next, in the Report and Order, the Commission takes steps to prohibit rate-of-return carriers from receiving CAF BLS in areas that are served by a qualifying unsubsidized competitor. However, the Commission limits the reduction in support to only those census blocks that are overlapped in at least 85 percent of their locations. The Commission recognized that competitive areas are likely to be lower cost and non-competitive areas are likely to be relatively higher cost, and therefore ensured that rate-of-return carriers subject to this rule may disaggregate their support in areas determined to be served by qualifying competitors by one of several options. The Commission provides further flexibility to those rate-of-return carriers affected by this rule by adopting a phased reduction in disaggregated support for

competitive areas. By permitting this flexibility, the Commission provides these small entities with the ability to make reasoned business decisions to advance their deployment goals.

362. To promote “accountability from companies receiving support to ensure that public investments are used wisely to deliver intended results,” the Commission adopts defined deployment obligations that are a condition of the receipt of high-cost funding for those carriers continuing to receive support based on embedded costs. To provide rate-of-return carriers with the certainty needed to invest in their networks, the Commission adopted a specific methodology to determine each carrier’s deployment obligation over a defined five-year period, which will be used to monitor carrier performance. The Commission recognizes that rate-of-return carriers subject to defined five-year deployment obligations may choose different timelines to meet their deployment obligations and therefore allows carriers the flexibility to choose to meet their obligation at any time during the five-year period.

363. In modifying its pricing rules, the Commission minimizes the burden on small carriers by deriving the costs for the Consumer Broadband-Only Loop category using existing data and allows NECA to tariff the Consumer Broadband-Only Loop rate for carriers electing model-based support because of the administrative efficiencies of employing a single tariff. The Commission also consolidates the certification that consumer broadband-only loop costs are not being double recovered into an existing certification, thus streamlining the process for small carriers.

364. The Commission also takes action to modify our existing reporting requirements. The Commission revises ETCs’ annual reporting requirements to align better those requirements with the Commission’s statutory and regulatory objectives. To reduce the administrative burden on rate-of-return carriers, the Commission concludes that the public interest would be served by eliminating the requirement to file a narrative update to the five-year plan. Instead, the Commission adopts narrowly tailored reporting requirements regarding the location of new deployment offering service at various speeds, which will better enable the Commission to determine on an annual basis how high-cost support is being used to “improve broadband availability, service quality, and capacity at the smallest geographic area possible.” Taken as a whole, these modifications to the reporting requirements for rate-of-return

carriers will reduce their administrative burden and provide certainty as to what must be filed and when.

365. In the Order and Order on Reconsideration, the Commission is particularly mindful of the economic impact rate represcription will have on rate-of-return incumbent LECs, many of which are small entities. Accordingly, the Commission takes a number of steps to minimize the economic impact of the new rate of return. As an initial matter, the Commission expands the upper end of the rate of return zone of reasonableness beyond the WACC estimates obtained using financial models based on policy considerations and adopt the rate of return from the upper end of this zone. In so doing, the Commission attempts to maximize the likelihood that the unitary rate of return is fully compensatory, even for small firms with a relatively high cost of capital. In addition, to help minimize the immediate financial impacts that represcription may impose on small carriers, the Commission adopts, for the first time, a transitional approach to represcription. Under this approach, the rate of return is reduced by 25 basis points per year beginning July 1, 2016 until it reaches the represcribed 9.75 percent rate of return. Together, these measures are intended to reduce the significant economic impact of the new rate of return on small carriers.

#### **C. Report to Congress**

366. The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996. In addition, the Commission will send a copy of the Order, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the Order and FRFA (or summaries thereof) will also be published in the Federal Register.

#### **D. Congressional Review Act**

367. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

368. People with Disabilities. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

369. Additional Information. For additional information on this proceeding, contact Suzanne Yelen of the Wireline Competition Bureau, Industry Analysis and Technology Division, Suzanne.Yelen@fcc.gov, (202) 418-7400 or Alexander Minard of the Wireline Competition Bureau, Technology Access Policy Division, Alexander.Minard@fcc.gov, (202) 418-7400.

## **V. ORDERING CLAUSES**

370. Accordingly, IT IS ORDERED, pursuant to the authority contained in sections 1, 2, 4(i), 5, 10, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 405 of the Communications Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. 151, 152, 154(i), 155, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, 405, 1302, and sections 1.1, 1.3, 1.421, 1.427, and 1.429 of the Commission's rules, 47 CFR 1.1, 1.3, 1.421, 1.427, and 1.429, that this Report and Order, Order and Order on Reconsideration, and concurrently adopted Further Notice of Proposed Rulemaking IS ADOPTED, effective thirty (30) days after publication of the text or summary thereof in the Federal Register, except for those rules and requirements involving Paperwork Reduction Act burdens, which shall become effective immediately upon announcement in the Federal Register of OMB approval. It is our intention in adopting these rules that if any of the rules that the Commission retains, modifies, or adopts herein, or the application thereof to any person or circumstance, are held to be unlawful, the remaining portions of the rules not deemed unlawful, and the application of such rules to other persons or circumstances, shall remain in effect to the fullest extent permitted by law.

371. IT IS FURTHER ORDERED that parts 51, 54, 65, and 69 of the Commission's rules, 47 CFR parts 51, 54, 65, and 69, ARE AMENDED as set forth in Appendix B, and such rule amendments SHALL BE EFFECTIVE thirty (30) days after publication of the rules amendments in the Federal Register, except to the extent they contain information collections subject to PRA review. The rules that contain information collections subject to PRA review SHALL BECOME EFFECTIVE immediately upon announcement in the Federal Register of OMB approval.

372. IT IS FURTHER ORDERED that pursuant to Section 1.3 of the Commission's rules, 47 CFR 1.3, sections 65.300 and 65.303 of the Commission's rules, 47 CFR 65.300, 65.303, are WAIVED to

the extent provided herein.

373. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1, 2, 4(i), 5, 10, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 405 of the Communications Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. 151, 152, 154(i), 155, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, 405, 1302, and sections 1.1, 1.3, 1.421, 1.427, and 1.429 of the Commission's rules, 47 CFR 1.1, 1.3, 1.421, 1.427, and 1.429, NOTICE IS HEREBY GIVEN of the proposals and tentative conclusions described in this Further Notice of Proposed Rulemaking.

374. IT IS FURTHER ORDERED that pursuant section 1.429(i) of the Commission's rules, 47 CFR 1.429(i), that the Petition for Reconsideration and Clarification of the National Exchange Carrier Association, Inc., Organization for the Promotion and Advancement of Small Telecommunications Companies, and Western Telecommunications Alliance, filed December 29, 2011, is DISMISSED and DENIED to the extent provided herein.

375. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Report and Order, Order and Order on Reconsideration, and concurrently adopted Further Notice of Proposed Rulemaking to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

376. IT IS FURTHER ORDERED, that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, Order and Order on Reconsideration, and concurrently adopted Further Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis and the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

### **List of Subjects**

#### **47 CFR Part 51**

Communications common carriers, Telecommunications.

#### **47 CFR Part 54**

Communications common carriers, Health facilities, Infants and children, Internet, Libraries,  
Reporting and recordkeeping requirements, Schools, Telecommunications, Telephone.

**47 CFR Part 65**

Administrative practice and procedure, Communications common carriers, Reporting and  
recordkeeping requirements, Telephone

**47 CFR Part 69**

Communications common carriers, Reporting and recordkeeping requirements, Telephone.

FEDERAL COMMUNICATIONS COMMISSION.

Marlene H. Dortch,  
Secretary.

## Final Rule

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 51, 54, 65, and 69 as follows:

### **PART 51—INTERCONNECTION**

1. The authority citation for part 51 is revised to read as follows:

Authority: 47 U.S.C. 151-55, 201-05, 207-09, 218, 220, 225-27, 251-54, 256, 271, 303(r), 332, 1302.

2. In §51.917, add paragraph (f)(4) to read as follows:

#### **§ 51.917 Revenue recovery for Rate-of-Return Carriers.**

\* \* \* \* \*

(f) \* \* \*

(4) A Rate-of-Return Carrier must impute an amount equal to the Access Recovery Charge for each Consumer Broadband-Only Loop line that receives support pursuant to §54.901 of this chapter, with the imputation applied before CAF-ICC recovery is determined. The per line per month imputation amount shall be equal to the Access Recovery Charge amount prescribed by paragraph (e) of this section, consistent with the residential or single-line business or multi-line business status of the retail customer.

### **PART 54—UNIVERSAL SERVICE**

3. The authority citation for part 54 is revised to read as follows:

Authority: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

#### **§ 54.301 [Removed].**

4. Remove §54.301.
5. Add §54.303 to subpart D to read as follows:

#### **§ 54.303 Eligible Capital Investment and Operating Expenses.**

(a) Eligible Operating Expenses. Each study area's eligible operating expenses for purposes of calculating universal service support pursuant to subparts K and M of this part shall be adjusted as follows:

(1) Total eligible annual operating expenses per location shall be limited as follows plus one standard deviation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3, \text{ where}$$

Y = is the natural log of the total operating cost per housing unit,

$\alpha$  is the coefficient on the constant

$\beta$  is the regression coefficient for each of the regressions,

$X_1$  is the natural log of the number of housing units in the study area,

$X_2$  is the natural log of the number of density (number of housing units per square mile), and

$X_3$  is the square of the natural log of the density

(2) Eligible operating expenses are the sum of Cable and Wire Facilities Expense, Central Office Equipment Expense, Network Support and General Expense, Network Operations Expense, Limited Corporate Operations Expense, Information Origination/Termination Expense, Other Property Plant and Equipment Expenses, Customer Operations Expense: Marketing, and Customer Operations Expense: Services.

(3) For purposes of this section, the number of housing units will be determined per the most recently available U.S Census data for each census block in that study area. If a census block is partially within a study area, the number of housing units in that portion of the census block will be determined based upon the percentage geographic area of the census block within the study area.

(4) Notwithstanding the provisions of paragraph (a) of this section, total eligible annual operating expenses for 2016 will be limited to the total eligible annual operating expenses as defined in this

section plus one half of the amount of total eligible annual expense as calculated prior to the application of this section.

(5) For any study area subject to the limitation described in this paragraph, a required percentage reduction will be calculated for that study area's total eligible annual operating expenses. Each category or account used to determine that study area's total eligible annual operating expenses will then be reduced by this required percentage reduction.

- (b) Loop Plant Investment allowances. Data submitted by rate-of-return carriers for purposes of obtaining high-cost support under subparts K and M of this part may include any Loop Plant Investment as described in paragraph (c)(1) of this section and any Excess Loop Plant Investment as described in paragraph (h) of this section, but may not include amounts in excess of the Annual Allowed Loop Plant Investment (AALPI) as described in paragraph (d) of this section. Amounts in excess of the AALPI will be removed from the categories or accounts described in paragraph (c)(1) of this section either on a direct basis when the amounts of the new loop plant investment can be directly assigned to a category or account, or on a pro-rata basis in accordance with each category or account's proportion to the total amount in each of the categories and accounts described in paragraph (c)(1) of this section when the new loop plant cannot be directly assigned. This limitation shall apply only with respect to Loop Plant Investment incurred after the effective date of this rule. If a carrier's required Loop Plant Investment exceeds the limitations set forth in this section as a result of deployment obligations in §54.308(a)(2), the carrier's Total Allowed Loop Plant Investment will be increased to the actual Loop Plant Investment required by the carrier's deployment obligations, subject to the limitations of the Construction Allowance Adjustment in paragraph (f) of this section.
- (c) Definitions. For purposes of determining loop plant investment allowances, the following definitions apply:

- (1) Loop Plant Investment includes amounts booked to the accounts used for subparts K and M of this part, loop plant investment.
  - (2) Total Loop Plant Investment equals amounts booked to the categories described in paragraph (b)(1) of this section, adjusted for inflation using the Department of Commerce's Gross Domestic Product Chain-type Price Index (GDP-CPI), as of December 31 of the Reference Year. Inflation adjustments shall be based on vintages where possible or otherwise calculated based on the year plant was put in service.
  - (3) Total Allowed Loop Plant Investment equals Total Loop Plant Investment multiplied by the Loop Depreciation Factor.
  - (4) Loop Depreciation Factor equals the ratio of total loop accumulated depreciation to gross loop plant during the Reference Year.
  - (5) Reference Year is the year prior to the year the AALPI is determined.
- (d) Determination of AALPI. A carrier subject to this section shall have an AALPI set equal to its Total Loop Plant Investment for each study area multiplied by an AALPI Factor equal to  $(0.15 \text{ times the Loop Depreciation Factor} + 0.05)$ . The Administrator will calculate each rate of return carrier's AALPI for each Reference Year.
- (e) Broadband Deployment AALPI adjustment. The AALPI calculated in paragraph (c) of this section shall be adjusted by the Administrator based upon the difference between a carrier's broadband availability for each study area as reported on that carrier's most recent Form 477, and the weighted national average broadband availability for all rate-of-return carriers based on Form 477 data, as announced annually by the Wireline Competition Bureau in a Public Notice. For every percentage point that the carrier's broadband availability exceeds the weighted national average broadband

availability for the Reference Year, that carrier's AALPI will be reduced by one percentage point. For every percentage point that the carrier's broadband availability is below the weighted national average broadband availability for the Reference Year, that carrier's AALPI will be increased by one percentage point.

- (f) Construction allowance adjustment. Notwithstanding any other provision of this section, a rate-of-return carrier may not include in data submitted for purposes of obtaining high-cost support under subpart K or subpart M of this part any Loop Plant Investment associated with new construction projects where the average cost of such project per location passed exceeds a Maximum Average Per Location Construction Project Limitation as determined by the Administrator according to the following formula:

- (1) Maximum Average Per Location Construction Project Loop Plant Investment Limitation equals the inflation adjusted equivalent to \$10,000 in the Reference Year calculated by multiplying \$10,000 times the applicable annual GDP-CPI. This inflation adjusted amount will be normalized across all study areas by multiplying the product above by (the Loop Cap Adjustment Factor times the Construction Limit Factor)

where

the Loop Cap Adjustment Factor equals the annualized monthly per loop limit described in §54.302 (i.e., \$3,000) divided by the unadjusted per loop support amount for the study area (the annual HCLS and CAF-BLS support amount per loop in the study not capped by §54.302)

and

the Construction Limitation Factor equals the study area Total Loop Investment per Location divided by the overall Total Loop Investment per Location for all rate-of-return study areas.

- (2) This limitation shall apply only with respect to Loop Plant Investment for which invoices were received by the carrier after the effective date of this rule.
  - (3) A carrier subject to this section will maintain documentation necessary to demonstrate compliance with the above limitation.
- (g) Study area data. For each Reference Year, the Administrator will publish the following data for each study area of each rate-of-return carrier:
- (1) AALPI
  - (2) The Broadband Deployment AALPI Adjustment
  - (3) The Maximum Average Per Location Construction Project Loop Plant Investment Limitation
  - (4) The Loop Cap Adjustment Factor
  - (5) The Construction Limit Factor
- (h) Excess Loop Plant Investment carry forward. Loop Plant Investment in a Reference Year in excess of the AALPI may be carried forward to future years and included in AALPI for such subsequent years, but may not cause the AALPI to exceed the Total Allowed Loop Plant Investment.
- (i) A carrier subject to this section will maintain subsidiary records of accumulated Excess Loop Plant Investment for accounts referenced in paragraph (c)(1) of this section in addition to the corresponding depreciation accounts. In the event a carrier makes Loop Plant Investment for an account at a level below the AALPI for the account, the carrier may reduce accumulated Excess Loop Plant Investment effective for the Reference Year by an amount up to, but not in excess of the amount by which AALPI for the Reference Year exceeds Loop Plant Investment for the account during the same year.

- (j) Treatment of unused AALPI. In the event a carrier's Loop Plant Investment is below its AALPI in a given Reference Year, there will be no carry forward to future years of unused AALPI. The Administrator's recalculation of AALPI for each Reference Year will reflect the revised AALPI, Loop Depreciation Factor, Total Loop Plant Investment, and Total Allowed Loop Plant Investment for the Reference Year.
- (k) Special circumstances. The AALPI for Loop Plant Investment may be adjusted by the Administrator by adding the applicable adjustment below to the amount of AALPI for the year in which additions to plant are booked to the accounts described in paragraph (c)(1) of this section, associated with any of the following:
- (1) Geographic areas within the study area where there are currently no existing wireline loop facilities;
  - (2) Geographic areas within the study area where grant funds are used for Loop Plant Investment
  - (3) Geographic areas within the study area for which loan funds were disbursed for the purposes of Loop Plant Investment before the effective date of this rule; and
  - (4) Construction projects for which the carrier, prior to the effective date of this rule, had awarded a contract to a vendor for a loop plant construction project within the study area.
- (l) Documentation requirements. The Administrator will not make these adjustments without appropriate documentation from the carrier.
- (m) Minimum AALPI. If a carrier has an AALPI that is less than \$4 million in any given year, the carrier shall be allowed to increase its AALPI for that year to the lesser of \$4 million or its Total Allowed Loop Plant Investment.

6. In §54.305, revise paragraph (a) to read as follows:

**§ 54.305 Sale or transfer of exchanges.**

(a) The provisions of this section shall not be used to determine support for any price cap incumbent local exchange carrier or a rate-of-return carrier, as that term is defined in §54.5, that is affiliated with a price cap incumbent local exchange carrier.

\* \* \* \* \*

7. In §54.308, revise paragraph (a) to read as follows:

**§ 54.308 Broadband public interest obligations for recipients of high-cost support.**

(a) Rate-of-return carrier recipients of high-cost support are required to offer broadband service, at speeds described below, with latency suitable for real-time applications, including Voice over Internet Protocol, and usage capacity that is reasonably comparable to comparable offerings in urban areas, at rates that are reasonably comparable to rates for comparable offerings in urban areas. For purposes of determining reasonable comparability of rates, recipients are presumed to meet this requirement if they offer rates at or below the applicable benchmark to be announced annually by public notice issued by the Wireline Competition Bureau.

(1) Carriers that elect to receive Connect America Fund-Alternative Connect America Cost Model (CAF-ACAM) support pursuant to §54.311 are required to offer broadband service at actual speeds of at least 10 Mbps downstream/1 Mbps upstream to a defined number of locations as specified by public notice, with a minimum usage allowance of 150 GB per month, subject to the requirement that usage allowances remain consistent with median usage in the United States over the course of the ten-year term. In addition, such carriers must offer other speeds to subsets of locations, as specified below:

(i) Fully funded locations. Fully funded locations are those locations identified by the Alternative-Connect America Cost Model (A-CAM) where the average cost is above the funding benchmark and at or below the funding cap. Carriers are required to offer broadband speeds to locations that are fully funded, as specified by public notice at the time of authorization, as follows:

(A) Carriers with a state-level density of more than 10 housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 75 percent of all fully funded locations in the state by the end of the ten-year period.

(B) Carriers with a state-level density of 10 or fewer, but more than five, housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 50 percent of fully funded locations in the state by the end of the ten-year period.

(C) Carriers with a state-level density of five or fewer housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 25 percent of fully funded locations in the state by the end of the ten-year period.

(ii) Capped locations. Capped locations are those locations in census blocks for which A-CAM calculates an average cost per location above the funding cap. Carriers are required to offer broadband speeds to locations that are receiving capped support, as specified by public notice at the time of authorization, as follows:

(A) Carriers with a state-level density of more than 10 housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 4 Mbps downstream/1 Mbps upstream to 50 percent of all capped locations in the state by the end of the ten-year period.

(B) Carriers with a state-level density of 10 or fewer housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 4 Mbps downstream/1 Mbps upstream to 25 percent of capped locations in the state by the end of the ten-year period.

(C) Carriers shall provide to all other capped locations, upon reasonable request, broadband at actual speeds of at least 4 Mbps downstream/1 Mbps upstream.

(2) Rate-of-return recipients of Connect America Fund Broadband Loop Support (CAF BLS) shall be required to offer broadband service at actual speeds of at least 10 Mbps downstream/1 Mbps upstream, over a five-year period, to a defined number of unserved locations as specified by public notice, as determined by the following methodology:

(i) Percentage of CAF BLS. Each rate-of-return carrier is required to target a defined percentage of its five-year forecasted CAF-BLS support to the deployment of broadband service to locations that are unserved with 10 Mbps downstream/1 Mbps upstream broadband service as follows:

(A) Rate-of-return carriers with less than 20 percent deployment of 10/1 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to utilize 35 percent of their five-year forecasted CAF-BLS support to extend broadband service where it is currently lacking.

(B) Rate-of-return carriers with more than 20 percent but less than 40 percent deployment of 10/1 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to utilize 25 percent of their five-year forecasted CAF-BLS support to extend broadband service where it is currently lacking.

(C) Rate-of-return carriers with more than 40 percent but less than 80 percent deployment of 10/1 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to utilize 20 percent of their five-year forecasted CAF-BLS support to extend broadband service where it is currently lacking.

(ii) Cost per location. The deployment obligation shall be determined by dividing the

amount of support set forth in paragraph (a)(2)(i) of this section by a cost per location figure based on one of two methodologies, at the carrier's election:

(A) The higher of:

(1) The weighted average unseparated cost per loop for carriers of similar density that offer 10/1 Mbps or better broadband service to at least 95 percent of locations, based on the most current FCC Form 477 data as determined by the Wireline Competition Bureau, but excluding carriers subject to the current \$250 per line per month cap set forth in §54.302 and carriers subject to limitations on operating expenses set forth in §54.303; or

(2) 150% of the weighted average of the cost per loop for carriers of similar density, but excluding carriers subject to the current \$250 per line per month cap set forth in §54.302 and carriers subject to limitations on operating expenses set forth in §54.303, with a similar level of deployment of 10/1 Mbps or better broadband based on the most current FCC Form 477 data, as determined by Wireline Competition Bureau; or

(B) The average cost per location for census blocks lacking 10/1 Mbps broadband service in the carrier's study area as determined by the A-CAM.

(iii) Restrictions on deployment obligations. (A) No rate-of-return carrier shall deploy terrestrial wireline technology in any census block if doing so would result in total support per line in the study area to exceed the \$250 per-line per-month cap in §54.302.

(B) No rate-of-return carrier shall deploy terrestrial wireline technology to unserved locations to meet this obligation if that would exceed the \$10,000 per location/per project capital investment allowance set forth in §54.303.

(iv) Future deployment obligations. Prior to publishing the deployment obligations for subsequent five-year periods, the Administrator shall update the unseparated average cost per loop amounts for carriers with 95 percent or greater deployment of the then-current

standard, based on the then-current NECA cost data, and the Wireline Competition Bureau shall examine the density groupings and make any necessary adjustments based on then-current U.S. Census data.

\* \* \* \* \*

8. Add §54.311 to subpart D to read as follows:

**§ 54.311 Connect America Fund Alternative-Connect America Cost Model Support.**

(a) Voluntary election of model-based support. A rate-of-return carrier (as that term is defined in §54.5) receiving support pursuant to subparts K or M of this part shall have the opportunity to voluntarily elect, on a state-level basis, to receive Connect America Fund-Alternative Connect America Cost Model (CAF-ACAM) support as calculated by the Alternative-Connect America Cost Model (A-CAM) adopted by the Commission in lieu of support calculated pursuant to subparts K or M of this part. Any rate-of-return carrier not electing support pursuant to this section shall continue to receive support calculated pursuant to those mechanisms as specified in Commission rules for high-cost support.

(b) Geographic areas eligible for support. CAF-ACAM model-based support will be made available for a specific number of locations in census blocks identified as eligible for each carrier by public notice. The eligible areas and number of locations for each state identified by the public notice shall not change during the term of support identified in paragraph (c) of this section.

(c) Term of support. CAF-ACAM model-based support shall be provided to the carriers that elect to make a state-level commitment for a term that extends until December 31, 2026.

(d) Interim deployment milestones. Recipients of CAF-ACAM model-based support must complete deployment to 40 percent of fully funded locations by the end of 2020, to 50 percent of fully funded locations by the end of 2021, to 60 percent of fully funded locations by the end of 2022, to 70 percent of fully funded locations by the end of 2023, to 80 percent of fully funded locations by the end of 2024, to 90 percent of fully funded locations by the end of 2025, and to 100 percent of fully funded locations by the end of 2026. By the end of 2026, carriers must complete deployment of broadband meeting a standard of at least 25 Mbps downstream/3 Mbps upstream to the requisite number of locations specified

in §54.308(a)(1)(i) through (iii). Compliance shall be determined based on the total number of fully funded locations in a state. Carriers that complete deployment to at least 95 percent of the requisite number of locations will be deemed to be in compliance with their deployment obligations. The remaining locations that receive capped support are subject to the standard specified in §54.308(a)(1)(iv).

(e) Transition to CAF-ACAM Support. Carriers electing CAF-ACAM model-based support whose final model-based support is less than the carrier's high-cost loop support and interstate common line support disbursements for 2015, will transition to model-based support as follows:

(1) If the difference between a carrier's model-based support and its 2015 high-cost support, as determined in paragraph (e)(4) of this section, is 10 percent or less, it will receive, in addition to model-based support, 50 percent of that difference in year one, and then will receive model support in years two through ten.

(2) If the difference between a carrier's model-based support and its 2015 high-cost support, as determined in paragraph (e)(4) of this section, is 25 percent or less, but more than 10 percent, it will receive, in addition to model-based support, an additional transition payment for up to four years, and then will receive model support in years five through ten. The transition payments will be phased-down 20 percent per year, provided that each phase-down amount is at least five percent of the total 2015 high-cost support amount. If 20 percent of the difference between a carrier's model-based support and its 2015 high-cost support is less than five percent of the total 2015 high-cost support amount, the transition payments will be phased-down five percent of the total 2015 high-cost support amount each year.

(3) If the difference between a carrier's model-based support and its 2015 high-cost support, as determined in paragraph (e)(4) of this section, is more than 25 percent, it will receive, in addition to model-based support, an additional transition payment for up to nine years, and then will receive model support in year ten. The transition payments will be phased-down ten percent per year, provided that each phase-down amount is at least five percent of the total 2015 high-cost support amount. If ten percent of the difference between a carrier's model-based support and its

2015 high-cost support is less than five percent of the total 2015 high-cost support amount, the transition payments will be phased-down five percent of the total 2015 high-cost support amount each year.

(4) The carrier's 2015 support for purposes of the calculation of transition payments is the amount of high-cost loop support and interstate common line support disbursed to the carrier for 2015 without regard to prior period adjustments related to years other than 2015, as determined by the Administrator as of January 31, 2016 and publicly announced prior to the election period for the voluntary path to the model.

9. Amend §54.313 by removing and reserving paragraph (a)(1), revising paragraphs (a)(10), (e)(1), and paragraph (e)(2) introductory text, removing and reserving paragraphs (e)(2)(i) and (iii), removing paragraphs (e)(3) through (6), and revising paragraphs (f)(1) introductory text, and (f)(1)(i) and (iii).

The revisions read as follows:

**§54.313 Annual reporting requirements for high-cost recipients.**

(a) \* \* \*

(10) Beginning July 1, 2013. A certification that the pricing of the company's voice services is no more than two standard deviations above the applicable national average urban rate for voice service, as specified in the most recent public notice issued by the Wireline Competition Bureau and Wireless Telecommunications Bureau; and

\* \* \* \* \*

(e) \* \* \*

(1) On July 1, 2016, a list of the geocoded locations already meeting the §54.309 public interest obligations at the end of calendar year 2015, and the total amount of Phase II support, if any, the price cap carrier used for capital expenditures in 2015.

(2) On July 1, 2017, and every year thereafter ending July 1, 2021, the following information:

\* \* \* \* \*

(f) \* \* \*

(1) Beginning July 1, 2015 and Every Year Thereafter. The following information:

(i) A certification that it is taking reasonable steps to provide upon reasonable request broadband service at actual speeds of at least 10 Mbps downstream/1 Mbps upstream, with latency suitable for real-time applications, including Voice over Internet Protocol, and usage capacity that is reasonably comparable to comparable offerings in urban areas as determined in an annual survey, and that requests for such service are met within a reasonable amount of time.

\* \* \* \* \*

(iii) A certification that it bid on category one telecommunications and Internet access services in response to all reasonable requests in posted FCC Form 470s seeking broadband service that meets the connectivity targets for the schools and libraries universal service support program for eligible schools and libraries (as described in §54.501) within its service area, and that such bids were at rates reasonably comparable to rates charged to eligible schools and libraries in urban areas for comparable offerings.

\* \* \* \* \*

10. Add §54.316 to subpart D to read as follows:

**§ 54.316 Broadband deployment reporting and certification requirements for high-cost recipients.**

(a) Broadband deployment reporting. Rate-of Return ETCs and ETCs that elect to receive Connect America Phase II model-based support shall have the following broadband reporting obligations:

(1) Recipients of high-cost support with defined broadband deployment obligations pursuant to §54.308(a) or §54.310(c) shall provide to the Administrator on a recurring basis information regarding the locations to which the eligible telecommunications carrier is offering broadband service in satisfaction of its public interest obligations, as defined in either §54.308 or §54.309.

(2) Recipients subject to the requirements of §54.308(a)(1) shall report the number of locations

for each state and locational information, including geocodes, separately indicating whether they are offering service providing speeds of at least 4 Mbps downstream/1 Mbps upstream, 10 Mbps downstream/1 Mbps upstream, and 25 Mbps downstream/3 Mbps upstream.

(3) Recipients subject to the requirements of §54.308(a)(2) shall report the number of newly served locations for each study area and locational information, including geocodes, separately indicating whether they are offering service providing speeds of at least 4 Mbps downstream/1 Mbps upstream, 10 Mbps downstream/1 Mbps upstream, and 25 Mbps downstream/3 Mbps upstream.

(4) Recipients subject to the requirements of §54.310(c) shall report the number of locations for each state and locational information, including geocodes, where they are offering service providing speeds of at least 10 Mbps downstream/1 Mbps upstream.

(b) Broadband deployment certifications Rate-of Return ETCs and ETCs that elect to receive Connect America Phase II model-based support shall have the following broadband deployment certification obligations:

(1) Price cap carriers that elect to receive Connect America Phase II model-based support shall provide: No later than March 1, 2017, and every year thereafter ending on no later than March 1, 2021, a certification that by the end of the prior calendar year, it was offering broadband meeting the requisite public interest obligations specified in §54.309 to the required percentage of its supported locations in each state as set forth in §54.310(c).

(2) Rate-of-return carriers electing CAF-ACAM support pursuant to § 54.311 shall provide:

(i) No later than March 1, 2021, and every year thereafter ending on no later than March 1, 2027, a certification that by the end of the prior calendar year, it was offering broadband meeting the requisite public interest obligations specified in §54.308 to the required

percentage of its fully funded locations in the state, pursuant to the interim deployment milestones set forth in §54.311(d).

(ii) No later than March 1, 2027, a certification that as of December 31, 2026, it was offering broadband meeting the requisite public interest obligations specified in §54.308 to all of its fully funded locations in the state and to the required percentage of its capped locations in the state.

(3) Rate-of-return carriers receiving support pursuant to subparts K and M of this part shall provide:

(i) No later than March 1, 2022, a certification that it fulfilled the deployment obligation meeting the requisite public interest obligations as specified in §54.308(a)(2) to the required number of locations as of December 31, 2021.

(ii) Every subsequent five-year period thereafter, a certification that it fulfilled the deployment obligation meeting the requisite public interest obligations as specified in §54.308(a)(4).

(c) Filing deadlines. (1) In order for a recipient of high-cost support to continue to receive support for the following calendar year, or retain its eligible telecommunications carrier designation, it must submit the annual reporting information required by March 1 as described in paragraphs (a) and (b) of this section. Eligible telecommunications carriers that file their reports after the March 1 deadline shall receive a reduction in support pursuant to the following schedule:

(i) An eligible telecommunications carrier that files after the March 1 deadline, but by February 7, will have its support reduced in an amount equivalent to seven days in support;

(ii) An eligible telecommunications carrier that files on or after February 8 will have its support reduced on a pro-rata daily basis equivalent to the period of non-compliance, plus the minimum seven-day reduction,

(2) Grace period. An eligible telecommunications carrier that submits the annual reporting information required by this section after March 1 but before March 1 will not receive a reduction in support if the eligible telecommunications carrier and its holding company, operating companies, and affiliates, as reported pursuant to §54.313(a)(8) in their report due July 1 of the prior year, have not missed the March 1 deadline in any prior year.

11. In §54.319, revise paragraph (a) and add paragraphs (d) through (h) to read as follows:

**§ 54.319 Elimination of high-cost support in areas with an unsubsidized competitor.**

(a) High-cost loop support provided pursuant to subparts K and M of this part shall be eliminated in an incumbent rate-of-return local exchange carrier study area where an unsubsidized competitor, or combination of unsubsidized competitors, as defined in §54.5, offer(s) to 100 percent of the residential and business locations in the study area voice and broadband service at speeds of at least 10 Mbps downstream/1 Mbps upstream, with latency suitable for real-time applications, including Voice over Internet Protocol, and usage capacity that is reasonably comparable to comparable offerings in urban areas, at rates that are reasonably comparable to rates for comparable offerings in urban areas.

\* \* \* \* \*

(d) High-cost universal service support pursuant to subpart K of this part shall be eliminated for those census blocks of an incumbent rate-of-return local exchange carrier study area where an unsubsidized competitor, or combination of unsubsidized competitors, as defined in §54.5, offer(s) voice and broadband service meeting the public interest obligations in §54.308(a)(2) to at least 85 percent of residential locations in the census block. Qualifying competitors must be able to port telephone numbers from consumers.

(e) After a determination that a particular census block is served by a competitor as defined in paragraph (d) of this section, support provided pursuant to subpart K of this part shall be disaggregated pursuant to a method elected by the incumbent local exchange carrier. The sum of support that is

disaggregated for competitive and non-competitive areas shall equal the total support available to the study area without disaggregation.

(f) For any incumbent local exchange carrier for which the disaggregated support for competitive census blocks represents less than 25 percent of the support the carrier would have received in the study area in the absence of this rule, support provided pursuant to subpart K of this part shall be reduced according to the following schedule:

(1) In the first year, 66 percent of the incumbent's disaggregated support for the competitive census block will be provided;

(2) In the second year, 33 percent of the incumbent's disaggregated support for the competitive census blocks will be provided;

(3) In the third year and thereafter, no support shall be provided pursuant to subpart K of this part for any competitive census block.

(g) For any incumbent local exchange carrier for which the disaggregated support for competitive census blocks represents more than 25 percent of the support the carrier would have received in the study area in the absence of this rule, support shall be reduced for each competitive census block according to the following schedule:

(1) In the first year, 85 percent of the incumbent's disaggregated support for the competitive census blocks will be provided;

(2) In the second year, 68 percent of the incumbent's disaggregated support for the competitive census blocks will be provided;

(3) In the third year, 51 percent of the incumbent's disaggregated support for the competitive census blocks will be provided;

(4) In the fourth year, 34 percent of the incumbent's disaggregated support the competitive census block will be provided;

(5) In the fifth year, 17 percent of the incumbent's disaggregated support the competitive census blocks will be provided;

(6) In the sixth year and thereafter, no support shall be paid provided pursuant to subpart K of this part for any competitive census block.

(h) The Wireline Competition Bureau shall update its analysis of competitive overlap in census blocks every seven years, utilizing the current public interest obligations in §54.308(a)(2) as the standard that must be met by an unsubsidized competitor.

12. Revise §54.707 to read as follows:

**§ 54.707 Audit controls.**

(a) The Administrator shall have the authority to audit contributors and carriers reporting data to the Administrator. The Administrator shall establish procedures to verify discounts, offsets and support amounts provided by the universal service support programs, and may suspend or delay discounts, offsets, and support amounts provided to a carrier if the carrier fails to provide adequate verification of discounts, offsets, or support amounts provided upon reasonable request, or if directed by the Commission to do so. The Administrator shall not provide reimbursements, offsets or support amounts pursuant to subparts D, K, L and M of this part to a carrier until the carrier has provided to the Administrator a true and correct copy of the decision of a state commission designating that carrier as an eligible telecommunications carrier in accordance with §54.202.

(b) The Administrator has the right to obtain all cost and revenue submissions and related information, at any time and in unaltered format, that carriers submit to NECA that are used to calculate support payments pursuant to subparts D, K, and M of this part.

(c) The Administrator (and NECA, to the extent the Administrator does not directly receive information from carriers) shall provide to the Commission upon request all underlying data collected from eligible telecommunications carriers to calculate payments pursuant to subparts D, K, L and M of this part.

**Subpart J-- [Removed and Reserved]**

13. Remove and reserve subpart J, consisting of §§ 54.800 through 54.809.

14. Revise §54.901 to read as follows:

**§ 54.901 Calculation of Connect America Fund Broadband Loop Support.**

(a) Connect America Fund Broadband Loop Support (CAF BLS) available to a rate-of-return carrier shall equal the Interstate Common Line Revenue Requirement per Study Area, plus the Consumer Broadband-Only Revenue Requirement per Study Area as calculated in accordance with part 69 of this chapter, minus:

(1) The study area revenues obtained from end user common line charges at their allowable maximum as determined by §69.104(n) and (o) of this chapter;

(2) Imputed Consumer Broadband-only Revenues, to be calculated as:

(i) The lesser of  $\$42 * \text{the number of consumer broadband-only loops} * 12$  or the Consumer Broadband-Only Revenue Requirement per Study Area; or

(ii) For the purpose of calculating the reconciliation pursuant to §54.903(b)(3), the greater of the amount determined pursuant to paragraph (a)(2)(i) of this section or the carrier's allowable Consumer Broadband-only rate calculated pursuant to §69.132 of this chapter \* the number of consumer broadband-only loops \* 12;

(3) The special access surcharge pursuant to §69.115 of this chapter; and

(4) The line port costs in excess of basic analog service pursuant to §69.130 of this chapter.

- (b) For the purpose of calculating support pursuant to paragraph (a) of this section, the Interstate Common Line Revenue Requirement and Consumer Broadband-only Revenue Requirement shall be subject to the limits on operating expenses and capital investment allowances pursuant to §54.303.
- (c) For purposes of calculating the amount of CAF BLS, determined pursuant to paragraph (a) of this section, that a non-price cap carrier may receive, the corporate operations expense allocated to the Common Line Revenue Requirement or the Consumer Broadband-only Loop Revenue Requirement, pursuant to §69.409 of this chapter, shall be limited to the lesser of:
- (1) The actual average monthly per-loop corporate operations expense; or
  - (2) The portion of the monthly per-loop amount computed pursuant to §54.1308(a)(4)(iii) that would be allocated to the Interstate Common Line Revenue Requirement or Consumer Broadband-only Loop Revenue Requirement pursuant to §69.409 of this chapter.
- (d) In calculating support pursuant to paragraph (a) of this section for periods prior to when the tariff charge described in §69.132 of this chapter becomes effective, only Interstate Common Line Revenue Requirement and Interstate Common line revenues shall be included.
- (e) To the extent necessary for ratemaking purposes, each carrier's CAF BLS shall be attributed as follows:
- (1) First, support shall be applied to ensure that the carrier has met its Interstate Common Line Revenue Requirement for the prior period to which true-up payments are currently being applied.
  - (2) Second, support shall be applied to ensure that the carrier has met its Consumer Broadband-only Loop Revenue Requirement for the prior period to which true-up payments are currently being applied.

- (3) Third, support shall be applied to ensure that the carrier will meet, on a forecasted basis, its Interstate Common Line Revenue Requirement during the current tariff year.
  - (4) Finally, support shall be applied as available to the Consumer Broadband-only Loop Revenue Requirement during the current tariff year.
- (f) CAF BLS Support is subject to a reduction as necessary to meet the overall cap on support established by the Commission for support provided pursuant to this subpart and subpart M of this part. Reductions shall be implemented as follows:
- (1) On May 1 of each year, the Administrator will publish a target amount for CAF BLS in the aggregate and the amount of CAF BLS that each study area will receive during the upcoming July 1 to June 30 tariff year. The target amount shall be the forecasted disbursement amount times a reduction factor. The reduction factor shall be the budget amount divided by the total forecasted disbursement amount for both High Cost Loop Support and CAF BLS for recipients in the aggregate. The forecasted disbursement for CAF BLS is the forecasted total disbursements for all recipients of CAF BLS, including both projections and true-ups in the upcoming July 1 to June 30 tariff year.
  - (2) The Administrator shall apply a per-line reduction to each carrier's CAF BLS equal to one-half the difference between the forecasted disbursement amount and the target amount divided by the total number of loops eligible for support. To the extent that per-line reduction is greater than the amount of CAF BLS per loop for a given carrier, that excess amount shall be subject to reduction through the method described in paragraph (f)(3) of this section.
  - (3) The Administrator shall apply an additional pro rata reduction to CAF BLS for each recipient of CAF BLS as necessary to achieve the target amount.

(g) For purposes of this subpart and consistent with §69.132 of this chapter, a consumer broadband-only loop is a line provided by a rate-of-return incumbent local exchange carrier to a customer without regulated local exchange voice service, for use in connection with fixed Broadband Internet access service, as defined in §8.2 of this chapter.

15. Revise §54.902 to read as follows:

**§ 54.902 Calculation of CAF BLS Support for transferred exchanges.**

(a) In the event that a rate-of-return carrier acquires exchanges from an entity that is also a rate-of-return carrier, CAF BLS for the transferred exchanges shall be distributed as follows:

(1) Each carrier may report its updated line counts to reflect the transfer in the next quarterly line count filing pursuant to §54.903(a)(1) that applies to the period in which the transfer occurred. During a transition period from the filing of the updated line counts until the end of the funding year, the Administrator shall adjust the CAF BLS Support received by each carrier based on the updated line counts and the per-line CAF BLS, categorized by customer class and, if applicable, disaggregation zone, of the selling carrier. If the acquiring carrier does not file a quarterly update of its line counts, it will not receive CAF BLS for those lines during the transition period.

(2) Each carrier's projected data for the following funding year filed pursuant to §54.903(a)(3) shall reflect the transfer of exchanges.

(3) Each carrier's actual data filed pursuant to §54.903(a)(4) shall reflect the transfer of exchanges. All post-transaction CAF BLS shall be subject to true up by the Administrator pursuant to §54.903(b)(3).

(b) In the event that a rate-of-return carrier acquires exchanges from a price-cap carrier, absent further action by the Commission, the exchanges shall receive the same amount of support and be subject to the same public interest obligations as specified in §54.310 or §54.312, as applicable.

(c) In the event that an entity other than a rate-of-return carrier acquires exchanges from a rate-of-return carrier, absent further action by the Commission, the carrier will receive model-based support and be subject to public interest obligations as specified in §54.310.

(d) This section does not alter any Commission rule governing the sale or transfer of exchanges, including the definition of “study area” in part 36 of this chapter.

16. Revise §54.903 to read as follows:

**§ 54.903 Obligations of rate-of-return carriers and the Administrator.**

(a) To be eligible for CAF BLS, each rate-of-return carrier shall make the following filings with the Administrator.

(1) Each rate-of-return carrier shall submit to the Administrator in accordance with the schedule in §54.1306 the number of lines it serves, within each rate-of-return carrier study area showing residential and single-line business line counts, multi-line business line counts, and consumer broadband-only line counts separately. For purposes of this report, and for purposes of computing support under this subpart, the residential and single-line business class lines reported include lines assessed the residential and single-line business End User Common Line charge pursuant to §69.104 of this chapter, the multi-line business class lines reported include lines assessed the multi-line business End User Common Line charge pursuant to §69.104 of this chapter, and consumer broadband-only lines reported include lines assessed the Consumer Broadband-only Loop rate charged pursuant to §69.132 of this chapter or provided on a detariffed basis. For purposes of this report, and for purposes of computing support under this subpart, lines served using resale of the rate-of-return local exchange carrier’s service pursuant to section 251(c)(4) of the Communications Act of 1934, as amended, shall be considered lines served by the rate-of-return carrier only and must be reported accordingly.

(2) A rate-of-return carrier may submit the information in paragraph (a) of this section in accordance with the schedule in §54.1306, even if it is not required to do so. If a rate-of-return carrier makes a filing under this paragraph, it shall separately indicate any lines that it has acquired from another carrier that it has not previously reported pursuant to paragraph (a) of this section, identified by customer class and the carrier from which the lines were acquired.

(3) Each rate-of-return carrier shall submit to the Administrator annually by March 31 projected data necessary to calculate the carrier’s prospective CAF BLS, including common line and consumer

broadband-only loop cost and revenue data, for each of its study areas in the upcoming funding year. The funding year shall be July 1 of the current year through June 30 of the next year. The data shall be accompanied by a certification that the cost data is compliant with the Commission's cost allocation rules and does not reflect duplicative assignment of costs to the consumer broadband-only loop and special access categories.

(4) Each rate-of-return carrier shall submit to the Administrator on December 31 of each year the data necessary to calculate a carrier's Connect America Fund CAF BLS, including common line and consumer broadband-only loop cost and revenue data, for the prior calendar year. Such data shall be used by the Administrator to make adjustments to monthly per-line CAF BLS amounts to the extent of any differences between the carrier's CAF BLS received based on projected common line cost and revenue data, and the CAF BLS for which the carrier is ultimately eligible based on its actual common line and consumer broadband-only loop cost and revenue data during the relevant period. The data shall be accompanied by a certification that the cost data is compliant with the Commission's cost allocation rules and does not reflect duplicative assignment of costs to the consumer broadband-only loop and special access categories.

(b) Upon receiving the information required to be filed in paragraph (a) of this section, the Administrator shall:

(1) Perform the calculations described in §54.901 and distribute support accordingly;

(2) [Reserved]

(3) Perform periodic reconciliation of the CAF BLS provided to each carrier based on projected data filed pursuant to paragraph (a)(3) of this section and the CAF BLS for which each carrier is eligible based on actual data filed pursuant to paragraph (a)(4) of this section; and

(4) Report quarterly to the Commission on the collection and distribution of funds under this subpart as described in §54.702(h). Fund distribution reporting will be by state and by eligible telecommunications carrier within the state.

**§ 54.904 [Removed].**

17. Remove §54.904.

18. In §54.1308, revise paragraph (a) introductory text to read as follows:

**§ 54.1308 Study Area Total Unseparated Loop Cost.**

(a) For the purpose of calculating the expense adjustment, the study area total unseparated loop cost equals the sum of the following, however, subject to the limitations set forth in §54.303:

\* \* \* \* \*

19. In §54.1310, add paragraph (d) to read as follows:

**§54.1310 Expense adjustment.**

\* \* \* \* \*

(d) High Cost Loop Support is subject to a reduction as necessary to meet the overall cap on support established by the Commission for support provided pursuant to this subpart and subpart K of this chapter. Reductions shall be implemented as follows:

(1) On May 1 of each year, the Administrator will publish an annual target amount for High-Cost Loop Support in the aggregate. The target amount shall be the forecasted disbursement amount times a reduction factor. The reduction factor shall be the budget amount divided by the total forecasted disbursement amount for both High Cost Loop Support and Broadband Loop Support for recipients in the aggregate. The forecasted disbursement for High Cost Loop Support is the High Cost Loop Support cap determined pursuant to §54.1302 as reflected in the most recent annual filing pursuant to §54.1305.

(2) Each quarter, the Administrator shall adjust each carrier's High Cost Loop Support disbursements as follows:

(i) The Administrator shall apply a per-line reduction to each carrier's High Cost Loop Support equal to one-half the difference between the forecasted disbursement amount and the target amount divided by the total number of loops eligible for support. To the extent that per-line reduction is greater than the amount of High Cost Loop Support per loop for a given carrier, that excess amount will be subject to reduction through the method described in paragraph (d)(2)(ii) of this section.

(ii) The Administrator shall apply an additional pro rata reduction to High Cost Loop Support for each recipient of High Cost Loop Support as necessary to achieve the target amount.

**PART 65—INTERSTATE RATE OF RETURN PRESCRIPTION PROCEDURES AND  
METHODOLOGIES**

20. The authority citation for part 65 is revised to read as follows:

Authority: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

21. Revise §65.302 to read as follows:

**§ 65.302 Cost of debt.**

The formula for determining the cost of debt is equal to:

$$\text{Embedded Cost of Debt} = \frac{\text{Total Annual Interest Expense}}{\text{Average Outstanding Debt}}$$

Where:

“Total Annual Interest Expense” is the total interest expense for the most recent year for all local exchange carriers with annual revenues equal to or above the indexed revenue threshold as defined in §32.9000 of this chapter.

“Average Outstanding Debt” is the average of the total debt outstanding at the beginning and at the end of the most recent year for all local exchange carriers with annual revenues equal to or above the indexed revenue threshold as defined in §32.9000 of this chapter.

**PART 69—ACCESS CHARGES**

22. The authority citation for part 69 is revised to read as follows:

AUTHORITY: 47 U.S.C. 154, 201, 202, 203, 205, 218, 220, 254, 403.

23. In §69.4, add paragraph (k) to read as follows:

**§69.4 Charges to be filed.**

\* \* \* \* \*

(k) A non-price cap incumbent local exchange carrier may include a charge for the Consumer Broadband-Only Loop.

24. In §69.104, revise paragraphs (n)(1) introductory text, (n)(1)(ii), and (o)(1) introductory text, remove paragraphs (n)(1)(ii)(A) through (C), and add paragraph (s).

The revisions and addition read as follows:

**§69.104 End user common line for non-price cap incumbent local exchange carriers.**

\* \* \* \* \*

(n)(1) Except as provided in paragraphs (r) and (s) of this section, the maximum monthly charge for each residential or single-line business local exchange service subscriber line shall be the lesser of:

\* \* \* \* \*

(ii) \$6.50.

\* \* \* \* \*

(o)(1) Except as provided in paragraphs (r) and (s) of this section, the maximum monthly End User Common Line Charge for multi-line business lines will be the lesser of:

\* \* \* \* \*

(s) End User Common Line Charges for incumbent local exchange carriers not subject to price cap regulation that elect model-based support pursuant to §54.311 of this chapter are limited as follows:

(1) The maximum charge a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter may assess for each residential or single-line business local exchange service subscriber line is the rate in effect on the last day of the month preceding the month for which model-based support is first provided.

(2) The maximum charge a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter may assess for each multi-line business local exchange service subscriber line

is the rate in effect on the last day of the month preceding the month for which model-based support is first provided.

25. In §69.115, revise paragraph (b) and add paragraph (f) to read as follows:

**§69.115 Special access surcharges.**

\* \* \* \* \*

(b) Except as provided in paragraph (f) of this section, such surcharge shall be computed to reflect a reasonable approximation of the carrier usage charges which, assuming non-premium interconnection, would have been paid for average interstate or foreign usage of common lines, end office facilities, and transport facilities, attributable to each Special Access line termination which is not exempt from assessment pursuant to paragraph (e) of this section.

\* \* \* \* \*

(f) The maximum special access surcharge a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter may assess is the rate in effect on the last day of the month preceding the month for which model-based support is first provided.

26. Revise §69.130 to read as follows:

**§69.130 Line port costs in excess of basic analog service.**

(a) To the extent that the costs of ISDN line ports, and line ports associated with other services, exceed the costs of a line port used for basic, analog service, non-price cap local exchange carriers may recover the difference through a separate monthly end-user charge, provided that no portion of such excess cost may be recovered through other common line access charges, or through Connect America Fund Broadband Loop Support.

(b) The maximum charge a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter may assess is the rate in effect on the last day of the month preceding the month for which model-based support is first provided.

27. Add §69.132 to subpart B to read as follows:

**§69.132 End user Consumer Broadband-Only Loop charge for non-price cap incumbent local exchange carriers.**

- (a) This section is applicable only to incumbent local exchange carriers that are not subject to price cap regulation as that term is defined in §61.3(ee) of this chapter.
- (b) A charge that is expressed in dollars and cents per line per month may be assessed upon end users that subscribe to Consumer Broadband-Only Loop service. Such charge shall be assessed for each line without regulated local exchange voice service provided by a rate-of-return incumbent local exchange carrier to a customer, for use in connection with fixed Broadband Internet access service, as defined in §8.2 of this chapter.
- (c) For carriers not electing model-based support pursuant to §54.311 of this chapter, the single-line rate or charge shall be computed by dividing one-twelfth of the projected annual revenue requirement for the Consumer Broadband-Only Loop category by the projected average number of consumer broadband-only service lines in use during such annual period.
- (d) The maximum monthly per line charge for each Consumer Broadband-Only Loop provided by a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter shall be \$42.

**§69.306 [Amended]**

28. In §69.306, remove and reserve paragraph (d)(2).

29. Add §69.311 to subpart D to read as follows:

**§69.311 Consumer Broadband-Only Loop investment.**

- (a) Each non-price cap local exchange carrier shall remove consumer broadband-only loop investment assigned to the special access category by §§69.301 through 69.310 from the special access category and assign it to the Consumer Broadband-Only Loop category when the tariff charge described in §69.132 of this part becomes effective.

(b) The consumer broadband-only loop investment to be removed from the special access category shall be determined using the following estimation method.

(1) To determine the investment in Common Line facilities (Category 1.3) as if 100 percent were allocated to the interstate jurisdiction, a carrier shall use 100 percent as the interstate allocator in determining Category 1.3 investment and the allocation of investment to the common line category under part 36 of this chapter and this part.

(2) The result of paragraph (b)(1) of this section shall be divided by the number of voice and voice/data lines in the study area to produce an average investment per line.

(3) The average investment per line determined by paragraph (b)(2) of this section shall be multiplied by the number of Consumer Broadband-only Loops in the study area to derive the investment to be shifted from the Special Access category to the Consumer Broadband-only Loop category.

**§ 69.415 [Amended].**

30. In § 69.415, remove and reserve paragraphs (a) through (c).

31. Add §69.416 to subpart E to read as follows:

**§ 69.416 Consumer Broadband-Only Loop expenses.**

(a) Each non-price cap local exchange carrier shall remove consumer broadband-only loop expenses assigned to the Special Access category by §§ 69.401 through 69.415 from the special access category and assign them to the Consumer Broadband-Only Loop category when the tariff charge described in § 69.132 of this Part becomes effective.

(b) The consumer broadband-only loop expenses to be removed from the special access category shall be determined using the following estimation method.

(1) The expenses assigned to the Common Line category as if the common line expenses were 100 percent interstate shall be determined using the methodology employed in § 69.311(b)(1).

(2) The result of paragraph (b)(1) of this section shall be divided by the number of voice and voice/data lines in the study area to produce an average expense per line.

(3) The average expense per line determined by paragraph (b)(2) of this section shall be multiplied by the number of Consumer Broadband-only Loops in the study area to derive the expenses to be shifted from the Special Access category to the Consumer Broadband-only Loop category.

32. In § 69.603, revise paragraphs (g) and (h)(4) through (6) to read as follows:

**§ 69.603 Association functions.**

\* \* \* \* \*

(g) The association shall divide the expenses of its operations into two categories. The first category (“Category I Expenses”) shall consist of those expenses that are associated with the preparation, defense, and modification of association tariffs, those expenses that are associated with the administration of pooled receipts and distributions of exchange carrier revenues resulting from association tariffs, those expenses that are associated with association functions pursuant to paragraphs (c) through (g) of this section, and those expenses that pertain to Commission proceedings involving this subpart. The second category (“Category II Expenses”) shall consist of all other association expenses. Category I Expenses shall be sub-divided into three components in proportion to the revenues associated with each component. The first component (“Category I.A Expenses”) shall be in proportion to High Cost Loop Support revenues. The second component (“Category I.B Expenses”) shall be in proportion to the sum of the association End User Common Line revenues and the association Special Access Surcharge revenues. Interstate Common Line Support Revenues and Connect America Fund Broadband Loop Support revenues shall be included in the allocation base for Category I.B expenses. The third component (“Category I.C Expenses”) shall be in proportion to the revenues from all other association interstate access charges.

(h) \* \* \*

(4) No distribution to an exchange carrier of High Cost Loop Support revenues shall include adjustments for association expenses other than Category I.A. Expenses.

(5) No distribution to an exchange carrier of revenues from association End User Common Line charges shall include adjustments for association expenses other than Category I.B Expenses. Interstate

Common Line Support and Connect America Fund Broadband Loop Support shall be subject to this provision.

(6) No distribution to an exchange carrier of revenues from association interstate access charges other than End User Common Line charges and Special Access Surcharges shall include adjustments for association expenses other than Category I.C Expenses.

\* \* \* \* \*

[FR Doc. 2016-08375 Filed: 4/22/2016 8:45 am; Publication Date: 4/25/2016]