Before the
CALIFORNIA PUBLIC UTILITIES COMMISSION

In the Matter of the Joint Application of Frontier Communications Corporation, Frontier Communications of America, Inc. (U5429C), Verizon California, Inc. (U1002C), Verizon Long Distance LLC (U5732C), and Newco West Holdings LLC for Approval of Transfer of Control Over Verizon California, Inc. and Related Approval of Transfer of Assets and Certifications.	Application 15-03-005

Supplemental Testimony

of

LEE L. SELWYN

on behalf of the

Office of Ratepayer Advocates
of the
California Public Utilities Commission

September 11, 2015

REDACTED – FOR PUBLIC INSPECTION

SUPPLEMENTAL TESTIMONY OF LEE L. SELWYN

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SUPPLEMENTAL TESTIMONY OF LEE L. SELWYN

EXECUTIVE SUMMARY

This Supplemental Testimony addresses several of the questions identified in the July 2, 2015 *Assigned Commissioner's Amended Scoping Ruling* (specifically, PU Code §854(b), §854(c), and Questions 2, 7, 8, 10, 12, 14, 15, 16, 17 and 19) and, with respect both to Question 7 and the scope of §854(b)(2) ratepayer benefits as identified in the *Amended Scoping Ruling*, to provide additional testimony regarding the Joint Applicants' election to structure the proposed transaction under Internal Revenue Code ("IRC") §338(h)(10). This testimony also addresses issues discussed at the Public Participation Hearings and workshops.

With respect to these issues, while Frontier may well turn out to be a better steward of California's wireline and broadband telecommunications resources than Verizon has been up to now, there is no assurance, absent affirmative measures by the CPUC, that the various benefits being claimed by Frontier in support of the transaction will actually flow through to ratepayers. The transaction has the potential to provide short-term and long-term economic benefits to ratepayers as required by §854(b)(1). However, based upon certain new financial information provided by Frontier witness John Jureller in his August 24 response to Questions 7 and 15 in the *Amended Scoping Ruling*, it is also possible that certain of the financial effects of the transaction could actually *negate* the required short-term and long-term economic benefits. Moreover, even if such economic benefits do result from the transaction, there can be no assurance that, without the Commission's imposition of specific conditions for approval, such benefits will be equitably allocated between shareholders and ratepayers, or that ratepayers will receive not less than 50 percent of those benefits as expressly required by §854(b)(2).

Mr. Jureller has now provided additional information regarding the financial impact of the transaction upon Frontier (Question 7 in the *Amended Scoping Ruling*), and advises that the additional debt and equity costs of the capital needed to finance the acquisition are actually greater than the anticipated savings arising from the elimination of Verizon's $700-million in annual corporate overheads being "allocated" to the three Guava ILECs in connection with "centralized services" being furnished to them by other Verizon entities. Taken at face value, such adverse financial impacts would fail to satisfy the threshold condition required at §854(b)(1) – that the transaction produce short-term and long-term economic benefits to ratepayers and would thus have to be rejected by the CPUC. Putting that aside, Frontier and Verizon continue to misstate, and thus seek to minimize, the applicability of §854(b)(2) to the present transaction. The statute contains the phrase "where the commission has ratemaking authority," and not "with respect to services subject to rate regulation," or "historically rate-regulated services." When the Commission determines that a particular service should be detariffed, that action has no effect upon its "ratemaking authority." Although most Verizon

California retail rates are currently detariffed, the services involved still fall squarely within the scope of the Commission's "ratemaking authority." In their responses to the *Amended Scoping Ruling* relating to §854 and to Questions 14, 15 and 16 in particular, the Joint Applicants also seem to misconstrue the statutory requirements as to the specific, affirmative findings that the Commission is directed to make. §854(b)(1) explicitly requires that the transaction provide positive economic benefits for ratepayers, and §854(b)(2) requires that ratepayers "shall receive not less than 50 percent of those benefits." §854(c) requires that the transaction "[m]aintain or *improve*" (emphasis supplied) the utility's financial condition (§854(c)(1)), its quality of service (§854(c)(2)), and the quality of its management (§854(c)(3)). §854(c)(6) requires that the transaction "be *beneficial on an overall basis* to state and local economies, and to the communities in the area served by the resulting public utility" (emphasis supplied). This is not a "do no harm" standard of review, wherein all that would be required is a demonstration that things will be no worse as a result of the transaction. Instead, the statute requires that the transaction provide *net gains* for ratepayers and for the California economy.

In accordance with Question 10 in the Amended Scoping Ruling, which addresses "the impact of the transaction on competition for voice, VoIP and broadband services," both Verizon and Frontier urge the Commission to rely upon the various findings in the 2006 URF decision as to the existence of effective competition, and on that basis suggest that the various conditions advanced by ORA and other parties are unnecessary because competition will assure that the benefits of the transaction will flow through to ratepayers as required by §854(b)(2). This push-back from what will become the second largest ILEC in California serves to underscore the limitations of the laissez-faire approach to telecommunications policy that the Commission had adopted in its 2006 Uniform Regulatory Framework ("URF") ruling. Here the Joint Applicants base their opposition to the imposition of any conditions for approval on the notion that the telecommunications market that they serve – and that the post-transaction Frontier will continue to service – is competitive, and that competition, not regulatory fiat, will assure that ratepayers receive not less than 50% of "the total short-term and long-term forecasted economic benefits" arising from the transaction. The Joint Applicants offer no independent evidence or analysis supporting this "flow-through" claim, choosing instead to rely upon the decade-old URF ruling. In this Supplemental Testimony, I apply an analytical framework to critically examine the Joint Applicants' claims as to the sufficiency of competition to satisfy the requirements of §854(b)(2). Among other things, I compare Verizon California's prices for wireline voice telephone services with those of so-called "intermodal" alternatives, and find that Verizon's prices exceed – by a considerable margin – the rates being charged by virtually every other provider. Whatever level of competition may be present for these services, it is clearly not sufficient to compel Verizon to reduce its prices to competitive levels. Indeed, the above-book-value price ($10.54-billion) that Verizon has established for the three Guava ILECs captures for Verizon the capitalized value of the economic rents inherent in the supracompetitive rates that Verizon has been able to set and maintain for the three companies' detariffed services. More importantly, the fact that Frontier is willing to pay this above-book-value price clearly reflects Frontier's expectation that it will be able to sustain these same supracompetitive rates indefinitely going forward. There is thus no basis for expecting that Frontier's prices and pricing policies will be any different than Verizon's following its takeover of Verizon California's operations, and thus no basis to conclude that competition will assure that ratepayers receive not less than 50% of the short-term and long-term economic benefits of the transaction.

Questions 10 and 19 in the Amended Scoping Ruling seeks information on the "impact of the transaction on competition for voice, VoIP and broadband services" and on "the impact of the transaction on FiOS service and content." From my analysis of the present Verizon/Frontier transaction as well as my work for ORA last year on the Comcast/TWC/Charter/Bright House merger, it has become apparent that huge gaps exist in the availability of broadband services that satisfy the FCC's current threshold definition of broadband at 25 mbps download/3 mbps upload, and that, statewide, competitive supply of broadband services meeting the FCC threshold is at best present in only about 18.8% of California census blocks and available to approximately 27.4% of California households. Put differently, nearly three-quarters of all California households either have no broadband access available at the FCC 25/3 threshold or, where it is available, is being offered by only a single provider. Where broadband competition is present, there are rarely more than two competitors and, as is typical of duopoly markets, there is no evidence of actual price competition for the service. Inasmuch as the principal source of competition for wireline voice telephone service is VoIP technology whose use requires the availability of high-speed broadband access, the lack of availability of, and effective competition for, broadband throughout the Joint Applicants' service areas must be considered when assessing the effectiveness of VoIP-based competitive supply of wireline voice services in constraining the market power of incumbent LECs. Section 706(a) of the federal *Telecommunications Act of 1996* ("TA96" or the "1996 Act") requires that "... each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment." While the proposed transaction is not likely to have any adverse impact upon competition relative to that which presently exists in the voice and broadband telecommunications markets as required by §854(b)(3), absent affirmative measures by the CPUC, the presence of competition is not likely to be materially changed or improved by the present transaction. And in the absence of any increase in the level of competition in the California broadband access market, the conditions for approval as proposed by ORA will help to assure that the transaction provides tangible direct benefits to ratepayers, employees, shareholders, and to the state and local economies, as required by PU Code §854(b) and (c) that would not otherwise arise.

As proposed, this transaction will do little to bring about statewide availability of broadband access at price levels that would be expected to arise under competitive conditions, notwithstanding the modest expansions of broadband services to which Frontier has "committed." Hence, Condition (6) as proposed by ORA – which would require that "Frontier should expand broadband services at speeds of no less than the FCC's definition of minimum broadband speeds, currently 25 Mbps download and 3 Mbps upload, to 98% of households in its new service territory by no later than December 31, 2020 [and that] 98% of households in tribal lands and low income areas should have access to the FCC's minimum definition of broadband speeds ... by no later than December 31, 2020" – is necessary in order for the Commission to find the transaction to be in the public interest. In light of the persistent lack of effective competition in the provision of high-speed broadband Internet access services in California, fulfillment of the public interest goals of §854 and of §706(a) of the 1996 Act will ultimately require that the Commission reexamine its current approach to regulating post-transaction Frontier and other dominant incumbent telecommunications providers, including ILECs as well as cable television multi-system operators ("MSOs"). Beyond that, in order to assure statewide availability of broadband access at "competitive" price levels in the absence of effective competition, the CPUC will need to seriously reevaluate the present state of competition in the California telecommunications market and revise the overall regulatory paradigm under which these services are provided and regulated. While this type of initiative would clearly fall well beyond the scope of the present proceeding, consideration of the "conditions necessary or warranted to mitigate" any "potential negative consequences of the proposed transactions" (Question 15 in the Amended Scoping Ruling) should be examined in the context of the ultimate need to address the issue of broadband availability and competition in all of California.

I conclude that absent specific conditions requiring flow-through of economic benefits to ratepayers, needed network improvements, and specific levels of broadband deployment, there would be no basis upon which the Commission can find that the requirements of §854(b)(2) have been satisfied.

SUPPLEMENTAL TESTIMONY OF LEE L. SELWYN

I, Lee L. Selwyn, declare as follows:

I.

INTRODUCTION AND SUMMARY

Purpose of this Supplemental Testimony

1. I am the same Lee L. Selwyn who submitted Reply Testimony in this proceeding on behalf of the Office of Ratepayer Advocates ("ORA") on July 28, 2015. The purpose of this Supplemental Testimony is address several of the questions identified in the July 2, 2015 Assigned Commissioner's *Amended Scoping Ruling* (specifically, PU Code §854(b), §854(c), and Questions 2, 7, 8, 10, 12, 14, 15, 16, 17 and 19) and, with respect both to Question 7 and the scope of §854(b)(2) ratepayer benefits as identified in the *Amended Scoping Ruling* to provide additional testimony regarding the Joint Applicants' election to structure the proposed transaction under Internal Revenue Code ("IRC") §338(h)(10). This testimony also addresses issues discussed at the Public Participation Hearings and workshops.

Summary and Overview

2. With respect to these issues, and as I stated in my July 28, 2015 Reply Testimony, while Frontier may well turn out to be a better steward of California's wireline and broadband telecommunications resources than Verizon has been up to now, there is no assurance, absent

affirmative measures by the CPUC, that the various benefits being claimed by Frontier in support of the transaction will actually flow through to ratepayers. The transaction has the potential to provide short-term and long-term economic benefits to ratepayers as required by §854(b)(1). However, based upon certain new financial information provided by Frontier witness John Jureller in his August 24 response to Questions 7 and 15 in the *Amended Scoping Ruling*, it is also possible that certain of the financial effects of the transaction could actually negate the required short-term and long-term economic benefits. Moreover, even if such economic benefits do result from the transaction, there can be no assurance that, without the Commission's imposition of specific conditions for approval, such benefits will be equitably allocated between shareholders and ratepayers, or that ratepayers will receive not less than 50 percent of those benefits as expressly required by §854(b)(2).

3. Mr. Jureller has now provided additional information regarding the financial impact of the transaction upon Frontier (Question 7 in the *Amended Scoping Ruling*), and advises that the additional debt and equity costs of the capital needed to finance the acquisition are actually greater than the anticipated savings arising from the elimination of Verizon's $700-million in annual corporate overheads being "allocated" to the three Guava ILECs in connection with "centralized services" being furnished to them by other Verizon entities. Taken at face value, such adverse financial impacts would fail to satisfy the threshold condition required at §854(b)(1) – that the transaction produce short-term and long-term economic benefits to ratepayers and would thus have to be rejected by the CPUC. Putting that aside, Frontier and Verizon continue to misstate, and thus seek to minimize, the applicability of §854(b)(2) to the

present transaction. The statute contains the phrase "where the commission has ratemaking authority," and not "with respect to services subject to rate regulation," or "historically rate-regulated services." When the Commission determines that a particular service should be detariffed, that action has no effect upon its "ratemaking authority." Although most Verizon California retail rates are currently detariffed, the services involved still fall squarely within the scope of the Commission's "ratemaking authority." In their responses to the *Amended Scoping Ruling* relating to §854 and to Questions 14, 15 and 16 in particular, the Joint Applicants also seem to misconstrue the statutory requirements as to the specific, affirmative findings that the Commission is directed to make. §854(b)(1) explicitly requires that the transaction provide positive economic benefits for ratepayers, and §854(b)(2) requires that ratepayers "shall receive not less than 50 percent of those benefits." §854(c) requires that the transaction "[m]aintain or *improve*" (emphasis supplied) the utility's financial condition (§854(c)(1)), its quality of service (§854(c)(2)), and the quality of its management (§854(c)(3)). §854(c)(6) requires that the transaction "be *beneficial on an overall basis* to state and local economies, and to the communities in the area served by the resulting public utility" (emphasis supplied). This is not a "do no harm" standard of review, wherein all that would be required is a demonstration that things will be no worse as a result of the transaction. Instead, the statute requires that the transaction provide *net gains* for ratepayers and for the California economy.

4. In accordance with Question 10 in the *Amended Scoping Ruling*, which addresses "the impact of the transaction on competition for voice, VoIP and broadband services," both Verizon and Frontier urge the Commission to rely upon the various findings in the 2006 URF decision as

to the existence of effective competition, and on that basis suggest that the various conditions advanced by ORA and other parties are unnecessary because competition will assure that the benefits of the transaction will flow through to ratepayers as required by §854(b)(2).[1] This push-back from what will become the second largest ILEC in California serves to underscore the limitations of the *laissez-faire* approach to telecommunications policy that the Commission had adopted in its 2006 *Uniform Regulatory Framework* ("URF") ruling.[2] Here the Joint Applicants base their opposition to the imposition of any conditions for approval on the notion that the telecommunications market that they serve – and that the post-transaction Frontier will continue to service – is competitive, and that competition, not regulatory fiat, will assure that ratepayers receive not less than 50% of "the total short-term and long-term forecasted economic benefits" arising from the transaction. The Joint Applicants offer no independent evidence or analysis supporting this "flow-through" claim, choosing instead to rely upon the decade-old URF ruling. In this Supplemental Testimony, I apply an analytical framework to critically examine the Joint Applicants' claims as to the sufficiency of competition to satisfy the requirements of §854(b)(2). Among other things, I compare Verizon California's prices for wireline voice telephone services with those of so-called "intermodal" alternatives, and find that Verizon's prices exceed – by a considerable margin – the rates being charged by virtually every other provider. Whatever level of competition may be present for these services, it is clearly not sufficient to compel Verizon to reduce its prices to competitive levels. Indeed, the above-book-value price ($10.54-billion) that

1. See, e.g., Aron August 24 testimony, at paras. 21, 80; Brophy August 24 testimony, at 15-17; Abernathy, at A4, A11-A17; pp. 18-48; Jureller August 24 testimony, at A3-A8; Teece August 24 testimony, at A20, A25-A33.

2. R.05-04-005, *Order Instituting Rulemaking on the Commission's Own Motion to Assess and Revise the Regulation of Telecommunications Utilities*, D.06-08-030, August 24, 2006 ("*URF Decision*").

Verizon has established for the three Guava ILECs captures for Verizon the capitalized value of the economic rents inherent in the supracompetitive rates that Verizon has been able to set and maintain for the three companies' detariffed services. More importantly, the fact that Frontier is willing to pay this above-book-value price clearly reflects Frontier's expectation that it will be able to sustain these same supracompetitive rates indefinitely going forward. There is thus no basis for expecting that Frontier's prices and pricing policies will be any different than Verizon's following its takeover of Verizon California's operations, and thus no basis to conclude that competition will assure that ratepayers receive not less than 50% of the short-term and long-term economic benefits of the transaction.

5. Questions 10 and 19 in the *Amended Scoping Ruling* seeks information on the "impact of the transaction on competition for voice, VoIP and broadband services" and on "the impact of the transaction on FiOS service and content." From my analysis of the present Verizon/Frontier transaction as well as my work for ORA last year on the Comcast/TWC/Charter/Bright House merger, it has become apparent that huge gaps exist in the availability of broadband services that satisfy the FCC's current threshold definition of broadband at 25 mbps download/3 mbps upload,[3] and that, statewide, competitive supply of broadband services meeting the FCC threshold is at best present in only about 18.8% of California census blocks and available to

3. FCC, *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 14-126, Rel. Feb 4, 2015, at 3.

approximately 27.4% of California households.[4] Put differently, nearly three-quarters of all California households either have no broadband access available at the FCC 25/3 threshold or, where it is available, is being offered by only a single provider. Where broadband competition is present, there are rarely more than two competitors and, as is typical of duopoly markets, there is no evidence of actual price competition for the service. Inasmuch as the principal source of competition for wireline voice telephone service is VoIP technology whose use *requires* the availability of high-speed broadband access, the lack of availability of, and effective competition for, broadband throughout the Joint Applicants' service areas must be considered when assessing the effectiveness of VoIP-based competitive supply of wireline voice services in constraining the market power of incumbent LECs. Section 706(a) of the federal *Telecommunications Act of 1996* ("TA96" or the "1996 Act") requires that "... each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, *measures that promote competition in the local telecommunications market*, or other regulating methods that remove barriers to infrastructure investment."[5] While the proposed transaction is not likely to have any adverse impact upon competition relative to that

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4. Based upon CPUC Broadband Availability Database, Round 10 data, as of June 30, 2014. 93,372 of the total 495,870 California census blocks currently have two or more providers offering broadband access with download speeds in excess of 25 mbps. 3,396,941 of the total 12,416,223 California households are included in these census blocks with competitive broadband availability.

5. 47 U.S.C.§1302(a), emphasis supplied.

which presently exists in the voice and broadband telecommunications markets as required by §854(b)(3), absent affirmative measures by the CPUC, *the presence of competition is not likely to be materially changed or improved by the present transaction*. And in the absence of any increase in the level of competition in the California broadband access market, the conditions for approval as proposed by ORA will help to assure that the transaction provides tangible direct benefits to ratepayers, employees, shareholders, and to the state and local economies, as required by PU Code §854(b) and (c) that would not otherwise arise.

6. As proposed, this transaction will do little to bring about statewide availability of broadband access at price levels that would be expected to arise under competitive conditions, notwithstanding the modest expansions of broadband services to which Frontier has "committed." Hence, Condition (6) as proposed by ORA – which would require that "Frontier should expand broadband services at speeds of no less than the FCC's definition of minimum broadband speeds, currently 25 Mbps download and 3 Mbps upload, to 98% of households in its new service territory by no later than December 31, 2020 [and that] 98% of households in tribal lands and low income areas should have access to the FCC's minimum definition of broadband speeds ... by no later than December 31, 2020" – is necessary in order for the Commission to find the transaction to be in the public interest. In light of the persistent lack of effective competition in the provision of high-speed broadband Internet access services in California, fulfillment of the public interest goals of §854 and of §706(a) of the 1996 *Act* will ultimately require that the Commission reexamine its current approach to regulating post-transaction Frontier and other dominant incumbent telecommunications providers, including ILECs as well

as cable television multi-system operators ("MSOs"). Beyond that, in order to assure statewide availability of broadband access at "competitive" price levels in the absence of effective competition, the CPUC will need to seriously reevaluate the present state of competition in the California telecommunications market and revise the overall regulatory paradigm under which these services are provided and regulated. While this type of initiative would clearly fall well beyond the scope of the present proceeding, consideration of the "conditions necessary or warranted to mitigate" any "potential negative consequences of the proposed transactions" (Question 15 in the *Amended Scoping Ruling*) should be examined in the context of the ultimate need to address the issue of broadband availability and competition in all of California.

7. I conclude that absent specific conditions requiring flow-through of economic benefits to ratepayers, needed network improvements, and specific levels of broadband deployment, there would be no basis upon which the Commission can find that the requirements of §854(b)(2) have been satisfied.

ISSUES IDENTIFIED IN THE *AMENDED SCOPING RULING*

Questions 7 and 15 – Financial Implications and Potential Negative Consequences of the Proposed Transaction.

8. Questions 7 and 15 of the *Amended Scoping Ruling* address the following related issues:

> 7. What are the financial implications of the transaction for Frontier?
>
> 15. What are the potential negative consequences of the proposed transactions? Are any conditions necessary or warranted to mitigate any such consequences?

In my July 28 Reply Testimony, I had identified significant financial benefits to both Verizon and to Frontier *shareholders* that would result from completion of the proposed transaction. Verizon would realize a large capital gain from the transaction, and Frontier expected that it could operate the three Guava companies at a lower cost than under Verizon control by eliminating large corporate overhead cost "allocations" currently being imposed by Verizon in connection with various centralized services being furnished to the three ILECs. From this analysis, I had calculated the minimum 50% ratepayer allocation of these short-term and long-term economic benefits.

9. Mr. Jureller has provided the Commission with additional information on the financial impact upon Frontier resulting from the transaction. On the basis of this additional information, Mr. Jureller advises that the principal source of the benefits upon which my analysis had been based – the $700-million in annual savings associated with the elimination of the Verizon "cost

allocations" of centralized services to the three Guava companies – are basically illusory and do not constitute *actual* economic benefits:

> While I am confident that the Transaction will yield substantial economic benefits for California, and that competitive forces will compel those benefits to be shared between Frontier and its customers, the magnitude of those benefits in California cannot be calculated with precision. For example, a significant source of cost savings is the reduction in allocated overhead expenses, and Frontier does not have visibility into the specifics of those costs or how Verizon has chosen to allocate them to California in particular. *In fact, Frontier cannot calculate any improvement in underlying costs or operating profit relative to California because there are no specific cost differences that Frontier can identify at this time in operating the California business.* This point is important. The majority of the benefits in the Transaction arise from unspecific overhead expenses allocated by Verizon to the three states as a whole for Verizon's centralized services. *For most services, Frontier expects to have approximately the same cash revenues and cash expenses as Verizon does in California*, but without the same overhead allocations from the corporate parent. In fact, *operating costs for California are not expected to be reduced*. The Company anticipates maintaining a larger workforce and incurring higher video content costs *which means that the in-state cash costs are expected to rise, not fall*.[6]

But Mr. Jureller goes even further in his attempt to negate the existence of the $700-million in annual cost savings upon which my §854(b)(2) ratepayer allocation analysis had been based. While conceding that "[t]he majority of the benefits in the Transaction arise from unspecific overhead expenses allocated by Verizon to the three states as a whole for Verizon's centralized services,"[7] he now suggests that "the expected operating cost savings do not take into account the incremental financing expenses (higher debt service and dividends) related to funding the

6. Jureller August 24 Rebuttal Testimony, at 10-11, emphasis supplied.

7. *Id.,*at 10, A10.

acquisition price, nor do they include the substantial integration operating or capital expenses or capture the new capital investment for network improvements that is contemplated by the Company."[8] Actually, Mr. Jureller is incorrect in suggesting that my analysis had not accounted for "the substantial integration operating or capital expenses." See Table 12 at page 119 in my July 28 Reply Testimony, where I had explicitly offset the total $3.175-million in projected "Year 1-5 Cost Savings" by $450-million of projected "Integration costs."Elaborating further, Mr. Jureller explains that

> an important offset to any "savings" is the cost of capital that Frontier is raising to fund this transaction. Frontier is raising an estimated total of $10.85 billion – $2.75 billion of equity and $8.10 billion of debt. Based upon the dividend rate of the equity already raised, and using an average debt cost of 9.0%, the total estimated incremental annual cost of capital to Frontier is approximately $1.015 billion. This should be compared to the annual cost "savings" of $700 million. Frontier has estimated that the operation will generate incremental cash flow to support operations and capital investment, but those savings should not be in isolation of other factors.[9]

Based on this testimony, Frontier's total costs to operate the three state companies included in the transaction, including the various costs it will incur to perform the functions that are now being supported by Verizon centralized services, will actually be *higher* than Verizon's current total operating costs when the "allocation" of Verizon corporate overheads is excluded. Mr. Jureller now admits that "operating costs for California are not expected to be reduced."[10] But

8. *Id.*, at 11, A11.

9. *Id.*, at 16, A16.

10. *Id.*, at 11, A10.

because Frontier will be paying Verizon $10.54-billion, a price that far exceeds the net book value of the Guava assets as currently being carried on Verizon's books, Frontier's debt service and other costs of carrying this $10.54-billion will be considerably greater than Verizon's costs, not even considering the higher overall cost of capital confronting Frontier due to its poorer credit rating relative to Verizon's.

10. If this new information provided by Mr. Jureller is taken at its face value, the Commission would be compelled to find that §854(b)(1) – the threshold requirement that the transaction provide short-term and long-term economic benefits for ratepayers – is not satisfied. Frontier's operating expenses will be greater than those that Verizon is incurring, and its capital-related costs will be substantially higher, indeed the increment in Frontier's cost of capital *will exceed the avoided allocation of Verizon corporate overheads by nearly 50%*. In its attempt to avoid having to allocate any of the economic benefits of the transaction to ratepayers, Frontier's Chief Financial Officer is now asserting that there will not be any net economic benefits to be shared.

The effect of the Joint Applicants' Internal Revenue Code §338(h)(10) election.

11. There is a direct relationship between the "estimated incremental annual cost of capital to Frontier [of] approximately $1.015 billion" arising from the $10.54-billion purchase price that Frontier will pay to Verizon and the Internal Revenue Code ("IRC") §338(h)(10) election under which the transaction has been structured. In my July 28 Reply Testimony (at para. 143), I summarized my understanding of the tax treatment of the Verizon/Frontier transaction as agreed

to by the two parties. I noted that "the transaction is being structured for tax purposes under IRC §338(h)(10)," and that "[u]nder this election, the buyer (Frontier) is permitted to take a step-up in basis for the assets being acquired in its acquisition of Newco to the full purchase price that is being paid ($10.54-billion), rather than retaining the considerably lower basis price for the physical assets involved in the transaction as currently carried on Verizon's books. This step-up ... allows Frontier to base its depreciation and amortization accruals upon the full $10.54-billion rather than on the much lower basis amount that had been carried on the books of the acquired companies." I indicated that ORA was attempting to obtain additional information about this §338(h)(10) election as to its impact upon the allocation of economic benefits to ratepayers as required by §854(b)(2). There are also potential financial implications of the §338(h)(10) election for Frontier that are addressed at Question 7 of the *Amended Scoping Ruling*.

12. ORA did ask the Joint Applicants for additional information regarding the tax treatment of the proposed transaction, and received responses from both companies.[11] From my review of these responses, it does not appear that ORA's calculation of the applicable §854(b)(2) ratepayer allocation of benefits is affected by the parties' IRC §338(h)(10) election.

13. However, the §338(h)(10) election does raise certain regulatory concerns that the Commission may want to consider and address, concerns that bear directly upon the matter of additional financing costs that has now been raised by Mr. Jureller and that I have discussed

11. See Verizon's response to ORA Data Request Set 11; Frontier's response to ORA Data Request Set 11, and Frontier's August 24, 2015 response to ORA's August 19, 2015 Meet & Confer letter.

above. Separate and apart from the §338(h)(10) election itself, the step-up in basis will have the effect of increasing post-transaction Frontier California's cost of capital (debt and equity financing) as well as its annual depreciation accruals relative to those appearing on Verizon California's books. All else equal, as a result of the above-book-value purchase price that Frontier is paying, and the correspondingly greater cost of capital and depreciation/amortization accruals that will be incurred, the company's earnings and return on investment will be correspondingly reduced. The incremental effects of the §338(h)(10) election on post-transaction Frontier's depreciation accruals for the three Guava ILECs simply reflect this condition, and are summarized on Table 1 below. Between 2016 and 2031, these additional depreciation accruals will total some BEGIN FRONTIER CONFIDENTIAL <<[redacted]>> END FRONTIER CONFIDENTIAL. Using a 54% allocation factor for California based upon access lines (see para. 131 of my July 28, 2015 Reply Testimony), I have estimated the California ILEC's share at BEGIN FRONTIER CONFIDENTIAL <<[redacted]>> END FRONTIER CONFIDENTIAL.

BEGIN FRONTIER CONFIDENTIAL <<

Table 1

FRONTIER CALIFORNIA
ADDITIONAL DEPRECIATION AND AMORTIZATION ACCRUALS
RESULTING FROM IRC §338(H)(10) ELECTION
($ millions)

Year	Additional Guava Accrual	Additional California Accrual (54%)
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		
2031		
TOTAL		

Source: Frontier Highly Confidential Attachment to Response to ORA Data Request Set 11, no. 4.

>> END FRONTIER CONFIDENTIAL

14. The §338(h)(10) election reflects, but is not the source of, the step-up in basis. The source of the step-up in basis is the above-book-value price that Frontier is paying to Verizon. The step-up in basis of the assets being acquired will inflate the post-transaction company's

apparent net investment which, together with the correspondingly lower level of earnings, will depress its return on investment relative to what would have been reported had the same three ILECs remained within the Verizon family, an outcome that is consistent with the above-referenced discussion in Mr. Jureller's August 24, 2015 Testimony. In contrast, the 2010 Verizon/Frontier transaction was structured as a tax-free exchange between the two companies. That meant that, following the transaction, the cost basis (net book value) of the transferred assets was unchanged, depreciation accruals were unaffected and, other than as a direct result of cost and other management changes arising from Frontier's takeover of the former Verizon ILECs, the earnings and ROI remained essentially unaffected by the transaction.

15. The financial structure of the 2010 transaction had strong parallels to the approach that would have applied under cost-based rate-of-return type regulation. There, the sale of a regulated utility's assets to another similarly regulated utility would have had no effect upon the rate base value of the transferred assets *no matter what the price that the buyer paid to the seller*. Without that principle, utilities could have easily inflated the values of their rate bases simply by engaging in parallel above-book-value transactions with each other.

16. One might perhaps argue that, inasmuch as neither Verizon California nor a post-transaction Frontier California are or would be subject to rate-of-return regulation,[12] the net book

12. Although Verizon and Frontier are not "subject to rate-of-return regulation", the Commission still has "ratemaking Authority" and consistent with the *Amended Scoping Ruling*, which states that Section 854(b) of the Pub. Util. Code "applies to this proposed sale:" and that 843(b)(2) requires that the transaction "Equitably allocates, where the commission has ratemaking authority, the total short-term and long-term forecasted
(continued...)

value of their plant-in-service, the level of their annual depreciation accruals, their cost of capital, their level of earnings, and their return on investment, are of no consequence. Yet in his August 24, 2015 Testimony, Frontier witness Prof. David J. Teece admonishes that:

> Investment budgets are not infinite as investments must earn a rate of return that justifies use of funds obtained through equity or debt from capital markets. A likely consequence of having to invest in certain specified projects is that the rate of return on Frontier's investments overall may suffer limiting the amount of total investment that Frontier can make, as well as depressing the actual return from investments overall.[13]

All else equal, the former Verizon ILECs that were acquired by Frontier in 2010 where no step-up in cost basis took place will thus report a higher ongoing level of earnings and return on investment than will the three Guava companies whose asset base will be inflated by the above-book-value purchase price. By Prof. Teece's reasoning, then, Frontier will see the three 2015 acquisitions as less profitable than the 2010 acquisitions, and will allocate its investment capital away from these relatively less profitable entities and over to those whose profit levels are not distorted by the §338(h)(10) accounting machinations and the above-book-value purchase price. The *Amended Scoping Ruling*, at Question 7, expressly seeks information as to "the financial implications of the transaction for Frontier." All else equal, the above-book-value acquisition cost and the incremental debt and equity costs that will result, create substantial financial

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12. (...continued)
economic benefits, as determined by the commission, of the proposed merger, acquisition or control, between shareholders and ratepayers. Ratepayers shall receive not less than 50 percent of those benefits; ..."

13. Teece August 24 Testimony, at 18, A23.

challenges for Frontier that have simply not existed under Verizon's ownership of these three ILECs.

17. Separate and apart from their role in influencing management's allocations of investment capital, and although these financial indicia do not serve the same direct role that they had under rate-of-return regulation, they are still useful in assessing the performance of the company and, in particular, the persistence of supracompetitive earnings as indicative of a lack of effective competition. The Commission continues to require that large ILECs submit annual financial reports.[14] All else equal, as a result of the step-up in basis, the increased depreciation accruals, the increased cost-of-capital, and the resulting depressed earnings and returns on investment, the post-transaction reports as submitted by Frontier will overstate operating expenses and correspondingly understate earnings vis-a-vis what would have been reported by Verizon had the transaction not taken place. This is by no means to suggest that the Commission should necessarily reject the parties' decision to structure the transaction under §338(h)(10). However, it is important that the Commission fully understand and account for the impact of the step-up in basis resulting from the above-book-value purchase price upon the post-transaction Frontier's financial results as reported to the Commission.

14. CPUC General Order 104-A (Filing of annual reports by public utilities).

There is no evidence to support Frontier's claim that competitive marketplace forces will assure that ratepayers receive not less than 50% of the short-term and long-term economic benefits of the transaction.

18. The *Amended Scoping Ruling* notes that "[t]he ultimate test of a proposed change of control over a regulated service such as the Verizon California landline business is whether or not it is in the public interest" and that the Commission must, "[a]t the least, ... be able to say that the proposed transaction is overall net beneficial in its impact on the various affected constituencies."[15] But let's set aside, for the moment, Mr. Jureller's current contention that, when all factors are considered, Frontier's costs to operate the three ILECs being acquired from Verizon will *increase*, not decrease as a result of the transaction and that, as such, no net economic benefits will actually arise. Even if there are positive net economic benefits, competitive marketplace forces will *not* be sufficient to assure that ratepayers will receive the required 50% share if the transaction is approved. Ms. Abernathy, for example, states that "competition is undeniably fierce in California. Between 2010 and 2014, Verizon California lost 42% of its access lines."[16] Mr. Jureller echoes this assessment:

> The high level of competition in the telecommunications industry is evidenced by the fact that more than fifty percent of consumers have dropped Verizon California as their voice service provider and now subscribe to services with a wireless, cable or other competitive service provider. In this environment, Frontier will be compelled by competitive forces to share the economic benefits

15. *Amended Scoping Ruling*, July 2, 2015, at 2-3.

16. Abernathy August 24 testimony, at 12, A10.

of the transaction with consumers, without the need for specific regulatory directives.[17]

Ms. Abernathy provides no specific source for her claim that "Between 2010 and 2014, Verizon California lost 42% of its access lines." While the statement may be correct with respect to "historically rate-regulated" circuit-switched Plain Old Telephone Service ("POTS") access lines, it does not appear to apply when migrations of these subscribers to Verizon California *FiOS* voice services (including bundles) are taken into account. Data provided in the Verizon Hart-Scott-Rodino ("HSR") filing appears to confirm the large drop in what Verizon terms "core" access lines – from BEGIN VERIZON CONFIDENTIAL <<[redacted]>>END VERIZON CONFIDENTIAL in 2012 to only BEGIN VERIZON CONFIDENTIAL <<[redacted]>>END VERIZON CONFIDENTIAL in 2014.[18] However, over that same period of time, *FiOS* lines in service increased from BEGIN VERIZON CONFIDENTIAL <<[redacted]>>END VERIZON CONFIDENTIAL in 2012 to BEGIN VERIZON CONFIDENTIAL <<[redacted]>>END VERIZON CONFIDENTIAL in 2014.[19] Moreover, when POTS + FiOS voice services are considered together, Verizon's share of the voice service market has barely moved. Between the first quarter of 2013 and the second quarter of 2014, Verizon California's market share for consumer voice services in the Los Angeles area dropped from BEGIN VERIZON

17. Jureller August 24 testimony, at 2, A1.

18. Verizon HSR, at Bates no. A1503005VZ60238.

19. *Id.*

CONFIDENTIAL << [redacted] to [redacted] >>END VERIZON CONFIDENTIAL.[20] Moreover, Verizon California's share of the consumer *voice* market BEGIN VERIZON CONFIDENTIAL << [redacted] >> END VERIZON CONFIDENTIAL its shares of the consumer broadband and consumer video markets.[21] Apparently ignoring this migration of POTS lines to *FiOS*, Prof. Teece seeks to buttress these claims of "robust competition" in the voice market on the basis of the Abernathy and Jureller testimony as to the precipitous loss of wireline subscribers experienced by Verizon:

> The empirical evidence suggests that, since the 2006 URF decision, competition between wireline telephone service and alternatives (wireless, cable telephony, and VoIP) has accelerated the shift of access lines from ILECs to their competitors thereby enhancing the competitive benefits for ratepayers,[22]

Moreover, while there is "empirical evidence" that the number of ILEC circuit-switched POTS wireline subscribers has decreased precipitously over the past decade, there is no evidence, and Prof. Teece offers none, that Verizon and other ILECs have responded to this purported decrease in demand by reducing prices and/or by enhancing the features of their wireline services to respond to the "intermodal" competition that Prof. Teece claims to be the driver of this shift in demand away from wireline services.[23]

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20. *Id.*, at Bates no. A1503005VZ60237.

21. *Id.*

22. Teece August 24 testimony, at 13, A17.

23. *Id.*, at 11, A15;

19. Nowhere in his testimony does Prof. Teece attempt to examine Verizon's *conduct* in the face of this large demand shift that would actually support his conclusion that Verizon, like other "incumbent ILECs lacked market power because of competition both from CLECs and intermodal competition."[24] In fact, Verizon's conduct in the wake of this intermodal competition actually provides compelling "empirical evidence" that directly contradicts Prof. Teece's conclusion.

- *Service features*. Virtually all postpaid wireless rate plans, and the vast majority of prepaid wireless rate plans as well, do not differentiate between "local" and "domestic long distance" calling, in effect, offering "free" long distance calling nationwide. To the best of my knowledge, all postpaid and prepaid wireless rate plans include an array of calling features such as Call Waiting, Caller ID, Call Forwarding, Three-way Calling, and Voice Mail. Most if not all cable phone services include a similar array of calling features, and many also include unlimited local and nationwide long distance calling. Some so-called "over-the-top" ("OTT") VoIP services include all of these features along with additional enhancements, such as the ability to designate multiple locations for incoming calls, and voicemail-to-e-mail and voicemail speech-to-text e-mail features. Verizon and most other ILECs include *none of these features* in their basic local service offerings and apparently have not felt compelled to do in response to the "fierce" competition that is said to exist in the California local phone service market. Verizon California's basic local wireline telephone service includes no unlimited nationwide long

24. *Id.*

distance calling, no calling features, no voicemail. Verizon and other ILECs offer many, although certainly not all, of these additional features at additional charges.

- *Pricing.* Although wireless prices have been steadily decreasing over the past decade (see Figure 7 below), Verizon California's basic local residential service rates have actually been *increasing*. The CPUC Communications Division prepared a *2014 Market Pricing Survey of Retail Communications Services in California*. I have included the *Pricing Survey* in Attachment 1 to this Supplemental Testimony. According to the *Pricing Survey*, Verizon California's Basic Local Residential Wireline Voice Service monthly rate is $22.00, and its price for the *Freedom Essentials* plan, which includes Wireline Local and Unlimited Long Distance calling and several calling features, is $59.99, *the highest rate of any provider in California for equivalent service*.[25] Notably, these prices *do not include the federal Subscriber Line Charge ("SLC") or any other non-tax surcharges*, many of which do not apply to wireless and other "intermodal" services. The *Pricing Survey* gives the Verizon California SLC as $7.00 per month,[26] bringing the total charge for Basic Local Service $29.00 and the total price of the Freedom Essentials package to $66.99. The *Pricing Survey* gives monthly prices for mobile voice plans that are roughly equivalent to Verizon's wireline Freedom Essentials plan, at between $30 and $40 – i.e., around half of the equivalent wireline price. Even

25. CPUC Communications Division, *Market Pricing Survey of Retail Communications Services in California*, December 2, 2014, at 7, Table 1.

26. *Id*., at 15, Table 2.

without including some of the various other wireline surcharges and fees, it is apparent that, rather than responding to the "fierce" and "robust" competition that it purportedly confronts, Verizon has chosen instead to "milk" its existing customer base under a "harvesting strategy" that is aimed at maintaining noncompetitive price levels for as long as its existing customers retain their services.

- *Price Trends*. The Communications Division's *Pricing Survey* also provides data on price changes between 2010 and 2014. Verizon California's Basic Local Residential Service rate increased from approximately $26.50 (including the SLC) in December 2010 to $29.00 as of April 2014.[27] For its bundled Freedom Essentials unlimited local and long distance calling package, the price (including the SLC) went from $52.99 to $66.99 over the corresponding period.[28] Verizon California's price for its VoIP service is the highest of any provider included in the *Survey*. The earliest date for which pricing information is provided is December 2011, where the price is shown at approximately $55.00. As of April 2014, Verizon's VoIP service price had dropped to about $45.00, but was still higher than any other ILEC, cable or OTT VoIP provider in the State.[29] As I noted in my July 28 Reply Testimony, wireless rates have been decreasing steadily over time, a clear indication that there is effective price-constraining competition in the wireless telecommunications marketplace.. In recent years, many postpaid wireless plans

27. *Id.*, at 9, Price Chart A.

28. *Id.* at 12, Price Chart G.

29. *Id.*, at 10, Price Chart C.

now include unlimited talk and text, or large blocks of time and, in some cases, rollover of unused minutes.

- *Overallocation of centralized services costs to the Verizon ILECs*. There has been a good deal of discussion throughout this proceeding regarding Verizon's current practice of allocating certain corporate overhead costs associated with its centralized services to the three Guava companies. As noted, Frontier puts the magnitude of these "allocated overhead costs" at some $700-million annually, and pins most of its expected financial gains from the transaction upon its expected ability to avoid these costs.[30] But that begs the threshold question as to why Verizon has saddled these three ILECs with an additional $700-million annual cost burden that, from Frontier's perspective, can be entirely avoided *even through Frontier does not expect its actual costs of performing these same functions to be less than Verizon's*.[31] When considered together with Verizon's practice of *raising* wireline service rates, of failing to respond to competition by including long distance calling and service features in its basic wireline offerings, and by setting price points for wireline plans that include long distance calling and features at almost double the prices being charged by wireless and OTT VoIP competitors, it becomes abundantly clear that Verizon has seen no business reason to respond to the

30. Jureller August 24 testimony, at A10. "The majority of the benefits in the Transaction arise from unspecific overhead expenses allocated by Verizon to the three states as a whole for Verizon's centralized services. For most services, Frontier expects to have approximately the same cash revenues and cash expenses as Verizon does in California, but without the same overhead allocations from the corporate parent. In fact, operating costs for California are not expected to be reduced."

31. *Id.*

"robust intermodal competition" in the manner in which it treats its ILEC wireline customers and its ILEC business units.

Getting past the Joint Applicants' rhetoric about the "fierce" and "robust" competition that is supposed to assure that no less than 50% of the economic benefits of the transaction will flow through to ratepayers, that claim is not and cannot be supported by empirical evidence of the type that I have just provided.

20. And there is absolutely no reason to believe or expect that the situation will change following Frontier's takeover of the California ILEC. Assuming that Verizon has been pursuing a profit-maximizing strategy with respect to the three ILECs involved in this transaction – and there is no basis to assume otherwise – one is then compelled to conclude that the company has determined that any deviation from its existing pricing strategies, product strategies, and approach to overhead cost allocation would have the effect of *reducing* profits from their present levels, an assessment that is entirely consistent with the conclusion that, contrary to the Joint Applicants' contention, however "robust" the competition for wireline services may be, *it has not forced wireline prices down to the "intermodal competitors" levels*. Which then begs the next question: If this strategy has worked for Verizon over the decade since the URF went into effect, is there any basis upon which to expect that Frontier will operate any differently following its takeover of Verizon California? The answer is clearly "no." Certainly Frontier has not offered any evidence or assurances to the contrary. For example, addressing TURN's proposed condition requiring that Frontier agree to "freeze [its] monthly and nonrecurring rates

for basic local residential voice service, residential features, and stand-alone residential broadband Internet access for five years,"[32] Frontier's witness Billy Jack Gregg suggests that

> While Frontier has agreed to rate caps in the past as part of other acquisitions, any such cap must be of reasonable duration. Ms. Abernathy explained in her direct testimony in this proceeding that Frontier was prepared to freeze basic residential voice service rates for two years in California. This period of frozen rates should mitigate any concern that California consumers are going to experience a rate increase as a result of the transfer of the VZCA service area to Frontier. A rate cap of longer duration will result in Frontier losing the flexibility to change the prices of its products and services to respond to the dictates of the competitive market.[33]

But with rates that greatly exceed "competitive market" levels and if this "competition" will be sufficient to assure that the statutory requirement of §854(b)(2) will be satisfied, we should expect that, once it assumes control of Verizon California, Frontier would *reduce* "the prices of its products and services to respond to the dictates of the competitive market," not increase them. If the dictates of the competitive market are expected to assure that the "economic benefits" of the transaction will be allocated to ratepayers as required by §854(b)(2), we should *expect* price reductions, not increases. *The fact that Frontier, even in the face of the "robust competition" it purports to confront and its assurances that ratepayers will receive their required allocation of economic benefits, is worried about its ability to raise rates, compels no conclusion other than that Frontier has no intention of flowing any significant economic benefits to ratepayers unless affirmatively compelled to do so by the Commission.* In order to assure compliance with

32. Reply Testimony of Susan M. Baldwin (TURN), July 28, 2015, at 170.

33. Gregg August 24 testimony, at 28-29.

§854(b)(2), what is required is not a "rate freeze" but a commitment by Frontier that it will *reduce prices for wireline services to levels comparable to those being charged by competing wireline and intermodal providers* following its takeover of Verizon California.

21. Finally, there is the matter of what happens when the current $700-million annual overhead allocation disappears after the Frontier takeover of the three ILECs. At the *corporate* level, Frontier would realize this savings. But Frontier has nowhere specifically committed that any portion of that $700-million will have any impact upon its own corporate allocation of overhead costs for centralized services to the three Guava ILECs. If Verizon California has been successful in (presumably) maximizing its profits for the parent company *even while burdened by its portion of that $700-million*, then it would follow that, following its takeover, Frontier will continue to impose precisely the same overhead allocation on the three ILECs. As both the Frontier and Verizon witnesses have repeatedly reminded the Commission, Verizon California is not currently subject to any form of cost-based or earnings-based regulation, and that condition will be unaffected by the transaction. Absent the imposition of specific conditions for approval of the transaction, I am not aware of any other means, under the existing regulatory paradigm, by which the Commission could otherwise compel Frontier, post-transaction, to flow through any portion of that $700-million "savings" to the California ILEC, or compel the California ILEC to flow through any portion of its share of that $700-million "savings" to its ratepayers. The mechanism for accomplishing that is provided at §854(b)(2), and that solution is only available *now*, in the context of this change-of-control application.

Determining the amount of short-term and long-term economic benefits that are required to be allocated to ratepayers.

22. In my July 28, 2015 Reply Testimony (at p. 149), I provided a calculation of the §854(b)(2) ratepayer allocation of economic benefits based upon the California ILEC's 54% of the total access lines that are being acquired by Frontier, at not less than $927.75-million. Notwithstanding the Company's overarching contention that no explicit ratepayer allocation is required due to the presence of "robust competition" in the markets being served by the California ILEC, Mr. Jureller raises two principal objections to the manner in which this amount was calculated:

(1) The $927.75-million incorrectly includes $192-million in anticipated Connect America Fund – Phase II (CAF-II) support;[34] and

(2) The remaining $735.75-million (net of the CAF-II support) was based upon the entirety of the California ILEC's anticipated cost savings, rather than being limited to the 30% of its operations "where [the] Commission historically exercised ratemaking authority."[35]

23. With respect to the inclusion of the CAF-II support, I would agree with Mr. Jureller's objection, although the treatment of the anticipated $192-million in CAF-II support is essentially a matter of semantics rather than economics. As Ms. Abernathy has explained, "[i]f the carrier

34. Jureller August 24 testimony, at 17, A17.

35. *Id.*, at 17, A18.

accepts the CAF Phase II support, it is required to offer broadband at a speed of 10 Mbps download / 1 Mbps upload or higher to the number of supported locations identified by the FCC, based roughly on an estimate of the number of households in the census blocks identified as eligible for CAF Phase II funding, and to abide by a series of build-out milestones."[36] The CAF-II support is provided by the FCC and is expected to be used to expand broadband availability to currently unserved and underserved areas. As such, all of the CAF-II support is expected to be expended in the prescribed manner. Since the California ILEC's eligibility for CAF-II support exists independently of the proposed transaction, it is not part of the transaction-driven §854(b)(2) allocation of ratepayer benefits. Verizon has declined to apply for CAF funding, and but for the proposed transfer of the three Guava ILECs to Frontier, has no current plans to do so.[37] As Ms. Abernathy explained, "Frontier's approach as an active participant in the CAF funding has been different from Verizon's approach. As Verizon has said, its focus has been on expanding fiber where it has been deployed, but it chose not to accept funding for broadband in both rounds of CAF Phase I."[38] Because Verizon had declined to apply for CAF-II support, Frontier represents that the availability of CAF-II support *to it* is a specific benefit of the

36. Abernathy Direct Testimony, at 21, citing *Connect America Fund*, Report and Order, 29 FCC Rcd 15644, at paras. 33-44 (2014).

37. On August 26, 2015, Verizon submitted a letter to the FCC advising that it was "conditionally accept[ing] the CAF offer in California of $31,978,057" and that its acceptance was "expressly conditioned upon issuance and acceptance of Regulatory Approvals ... of the Transaction" by both the FCC and the California PUC. August 26, 2015 letter from Christopher Creager, SVP Verizon West Area Operations, Strategic Initiatives, to Marlene H. Dortch, Secretary, Federal Communications Commission.

38. Abernathy Direct Testimony, at 19.

transaction.[39] However, the California ILEC entity's entitlement to such support exists whether the ILEC is owned by Verizon or by Frontier. Verizon has apparently made a corporate decision not to apply for CAF-II funding for California due to its unwillingness to comply with the 10/1 build-out commitment that would be required, but the Commission could well have addressed that situation separate and apart from this transaction under the authority granted to it by Section 706(a) of the 1996 Act. Notably, AT&T notified the FCC of its *acceptance* of $428-million in CAF-II funding covering 18 states, along with the required conditions.[40] Unlike Verizon, AT&T's acceptance of CAF-II support is not conditioned upon approval of any "change of control" transaction. While it is somewhat ironic that Frontier would on the one hand portray the availability of the CAF-II support as a benefit of the transaction while disowning it as an economic benefit to be allocated to ratepayers under §854(b)(2), it is probably reasonable to exclude it from the specific §854(b)(2) calculation, and then (to the extent that it is appropriate to consider the CAF-II support as a benefit of the transaction) add it back to the ratepayer allocation to put a dollar value on the total economic benefit of the transaction. In any event, whether it is treated as I had done in my Reply Testimony or as I am suggesting be done here, the result is exactly the same. See Table 2 below.

39. *Id.*, at 4.

40. "AT&T Accepts Nearly $428 Million in Annual Support from Connect America Fund to Expand and Support Broadband for Over 2.2 Million Rural Consumers in 18 States, FCC Press Release, August 27, 2015, available at https://www.fcc.gov/document/att-accepts-428-m-connect-america-fund-rural-broadband (accessed 9/9/15).

Table 2

**FRONTIER CALIFORNIA
CALCULATION OF COMBINED §854(b)(2) RATEPAYER ALLOCATION OF
SHORT-TERM AND LONG-TERM ECONOMIC BENEFITS
AND ANTICIPATED CAF-II SUPPORT**

§854(b)(2) Short-term and Long-term Economic Benefits		
Source	Total Guava	California share (54%)
Year 1 cost savings	$525,000,000	$283,500,000
Year 2 cost savings (estimate, see Note)	$600,000,000	$324,000,000
Year 3 cost savings (estimate, see Note)	$650,000,000	$351,000,000
Year 4 cost savings	$700,000,000	$378,000,000
Year 5 cost savings	$700,000,000	$378,000,000
TOTAL Year 1-5 savings	$3,175,000,000	$1,714,500,000
Less: Integration costs	($450,000,000)	($243,000,000)
TOTAL NET Year 1-5 benefits	$2,725,000,000	$1,471,500,000
50% §854(b)(2) Ratepayer Allocation		$735,750,000
Anticipated Connect America Fund Phase II Support		
Anticipated CAF funding		$192,000,000
TOTAL §854(b)(2) Ratepayer Benefits plus CAF-II Support		**$927,750,000**

Note: Mr. Jureller does not provide estimates for additional synergy benefits for Years 2 and 3. I have conservatively estimated these at $75-million (Year 2) and $125-million (Year 3). CAF Phase II funding is estimated at $32-million per year for five years.

24. Mr. Jureller's second objection – that the scope of §854(b)(2) is limited to services where, as he put it, the "Commission historically exercised ratemaking authority" – is incorrect for several different reasons. First, he misstates the statutory requirement, which provides for a ratepayer allocation of benefits "where the commission has ratemaking authority" and not "where [the] Commission historically exercised ratemaking authority." Nowhere in the URF decision did the Commission give up any of its "ratemaking authority."[41] As I stated at fn. 156,

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41. Ms. Abernathy similarly misstates the statutory requirement. "... the Commission has decided not to exercise its ratemaking authority for services based on its determination that competition disciplines the behaviors of the (continued...)

p. 117 of my July 28 Reply Testimony, ORA counsel has advised me that the CPUC has jurisdiction and the obligation to encourage the timely and reasonable deployment of broadband and VoIP services in California, and may take regulatory measures to promote the deployment of these services pursuant to Section 706(a) of the 1996 federal *Telecommunications Act*.[42]

25. However, for the sake of discussion, I will assume for the moment that Mr. Jureller's assessment of the extent of the Commissions "ratemaking authority" is correct, and that it is limited to, as Ms. Abernathy has described it, "the historically rate-regulated services impacted by this transaction." Mr. Jureller states that "[b]ased on Frontier's review of Verizon California's performance over the last several years and its projections going forward, Frontier conservatively projects that only approximately 30% of the to-be-acquired Verizon California operations' revenues will be derived from residential voice services and other intrastate services that were historically regulated by the Commission."[43] Mr. Jureller then applies this 30% factor to 50% of the $1,471.5-million in operating cost savings, i.e., to my estimate of the California ILEC's share of the first five years of Frontier's total cost savings attributable to the elimination of the Verizon overhead cost allocations, net of integration costs, from Table 12 at page 119 of my July 28, 2015 Reply Testimony. The result of this calculation is a figure for the ratepayer

41. (...continued)
companies providing telecommunications services." Abernathy August 24 testimony, at 5, A5. §854(b)(2) applies to services "where the Commission has ratemaking authority," not to only those services where the Commission *exercises* its ratemaking authority.

42. I am not an attorney and thus will not comment further on the jurisdictional issue. I am advised that ORA will address jurisdictional issues in its brief.

43. Jureller August 24 testimony, at 15.

allocation of economic benefits of the transaction with respect to services "where [the] Commission historically exercised ratemaking authority," which Mr. Jureller puts at $221-million.[44]

26. What Mr. Jureller has done here is to apportion the total overhead cost savings to the services "where [the] Commission historically exercised ratemaking authority" *based upon the proportion of total Verizon California revenues that those "historically rate-regulated" services are projected to represent in 2018*.[45] That is, since (by his calculation) the historically rate-regulated services are projected to represent 30% of total Verizon California revenues, he ascribes to these services the same 30% of the overhead costs that are currently being charged by Verizon to the ILEC in connection with the provision of centralized services, costs that Frontier expects to avoid. But there is no economic basis for this type of proportionate allocation or extrapolation, and Mr. Jureller provides none. Verizon has provided no explanation as to the basis for its specific allocation of the centralized services overhead to the three Guava ILECs vs. the remaining entities comprising the vast Verizon corporate structure, and there is certainly no basis for an assumption that such an allocation is based upon revenue. In fact, there is compelling evidence that this "allocation" bears no relationship to "revenues" at all. As Table 3 below summarizes, Verizon California's total 2014 operating revenue was $2.69-billion,[46] which

44. *Id.*, at 17.

45. Frontier Response to ORA Data Request Set 13, confidential attachment "ORA 13.1 CA Revenue Summary Confidential",

46. Jureller Direct Testimony, at 9, citing Verizon/Frontier March 18, 2015 CPUC Joint Application, Exhibit 6. Note that a different, and lower, figure for 2014 Verizon California revenue (BEGIN VERIZON CONFIDENTIAL

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represents only 2.12% of the $127.1-billion in total 2014 Verizon corporate revenue.[47] Yet according to Verizon's responses to ORA Data Request Set 8, no. 1, the total centralized services allocation to Verizon California was BEGIN CONFIDENTIAL << [redacted] >> END CONFIDENTIAL,[48] representing BEGIN CONFIDENTIAL << [redacted] of the total [redacted] - [redacted] >> END CONFIDENTIAL in "centralized services expenses."[49] Verizon advises that "All categories are allocated to all Verizon entities,"[50] thus making this a proper "apples-to-apples" comparison.

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Table 3

COMPARISON OF VERIZON CALIFORNIA'S SHARE OF TOTAL VERIZON 2014 REVENUES WITH VERIZON CALIFORNIA'S 2014 VERIZON CENTRALIZED SERVICES COST ALLOCATION

	Revenues	% of total Verizon	Centralized Services Allocation	% of total Verizon
Verizon California	$2.69-billion	2.12%	[redacted]	[redacted]
Total Verizon	$127.1-billion		[redacted]	

Source: Verizon Communications, Inc. 2014 Annual Report to Shareholders, at 9; Verizon HSR filing, at Bates no. A1503005VZ60238; Verizon Confidential Response to ORA Data Request, Set 8, no. 1©, 1(f).

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46. (...continued)
<< [redacted] >> END VERIZON CONFIDENTIAL) is given in the Verizon HSR filing, at Bates no. A1503005VZ60238.

47. Verizon Communications, Inc. 2014 Annual Report to Shareholders, at 9.

48. Verizon Confidential Response to ORA Data Request, Set 8, no. 1(c).

49. Verizon Confidential Response to ORA Data Request, Set 8, no. 1(f).

50. *Id.*

27. There is thus a far stronger basis to associate the *entirety* of the California ILEC's share of the $700-million in annual Verizon overhead cost allocations with the "historically rate-regulated" services. As I have shown, Verizon has persisted in maintaining – and increasing – prices for its legacy wireline local telephone services that are consistently higher than any of the "intermodal" competing services and, indeed, higher than any of the prices being charged by the other California ILECs for similar legacy wireline services that are included in the Communications Division's *Pricing Survey*. Verizon's VoIP, broadband (*FiOS*) and MVPD video services and service bundles – which apparently represent the other 70% of the ILEC's business – are more than likely not the intended target of the $700-million in excessive annual overhead burdens. Verizon has viewed its *FiOS* broadband and video services as strategic, forward-looking offerings targeted to the future. It has (at least until recently) invested large sums of money in these services nationally, and regularly engages in extensive and no doubt expensive marketing and other promotional efforts. Inasmuch as Verizon appears to be overallocating these overheads to its ILEC operations, it is entirely reasonable to also assume that it is similarly overallocating these overheads to precisely those legacy services for which the overarching business strategy is *harvesting*, not market share expansion.[51]

28. Finally, even the 30% figure that Mr. Jureller has utilized is based upon *Frontier's* projection of the proportion of the California ILEC's revenues that will come from "historically

51. It might be argued that it is precisely due to the FiOS-oriented marketing and advertising costs that a substantial portion of the $700-million overhead charges may well be associated with FiOS and other "non-historically rate-regulated services." That is highly unlikely. If Verizon was recovering even a small portion of its national FiOS marketing costs through these overhead charges, then Frontier, which will be required to continue to incur FiOS marketing costs, could not then avoid them as it has stated it expects to do.

rate-regulated services" as of 2018. That percentage has been decreasing as Verizon migrated customers from circuit-switched voice service to *FiOS* voice service (which takes the revenue out of the "historically rate-regulated service" category). In 2010, the "historically rate-regulated services" accounted for BEGIN CONFIDENTIAL <<[redacted]>> END CONFIDENTIAL of Verizon California revenues; in 2014, they accounted for BEGIN CONFIDENTIAL <<[redacted]>> END CONFIDENTIAL.[52] Since we do not know exactly how Verizon determined the amounts of these overheads to be allocated to the ILECs vs. other Verizon entities to which "centralized services" are being provided, it is unclear that applying a projected percentage to historical costs is appropriate.

29. Thus, even if the Commission were to accept Frontier's argument that any ratepayer allocation of the short-term and long-term economic benefits of the transaction should be limited to only the "historically rate-regulated" services, absent a showing to the contrary, it is an entirely reasonably presumption that the *entirety* of the Verizon overhead allocations have been associated with precisely those same services. Accordingly, my original $735.75-million calculation of the §854(b)(2) economic benefits to be allocated to ratepayers is correct, and should be adopted for purpose of approval of this transaction.

30. Consistent with the *Amended Scoping Ruling*, the Commission's review of the proposed transaction includes considerations of all factors raised in PU Code §854(b). The Joint

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52. Frontier Response to ORA Data Request Set 13, confidential attachment "ORA 13.1 CA Revenue Summary Confidential",

Applicants consistently misconstrue what is required in that review. For example, in her testimony relating to §854(b) and also addressing issues raised at Questions 14, 15 and 16 ("What is the impact of the proposed transaction on innovation, investment, and the economy of California?;" "What are the potential negative consequences of the proposed transactions?" and "Is the proposed transaction in the public interest?"), Dr. Aron appears to be suffering from several fundamental misunderstandings of the statutory requirements as to the specific, affirmative findings that the Commission is directed to make. §854(b)(1) explicitly requires that the transaction provide positive economic benefits for ratepayers and §854(b)(2) requires that ratepayers "shall receive not less than 50 percent of those benefits." §854(c) requires that the transaction "[m]aintain or *improve*" (my emphasis) the utility's financial condition (c)(1), its quality of service (c)(2), and the quality of its management (c)(3). §854(c)(6) requires that the transaction "be *beneficial on an overall basis* to state and local economies, and to the communities in the area served by the resulting public utility." This is not a "do no harm" standard of review, wherein all that would be required is a demonstration that things will be no worse as a result of the transaction. Instead, the statute requires that the transaction provide *net gains* for ratepayers and for the California economy. §854(b)(3) – the requirement that the transaction "[n]ot adversely affect competition" – is an example of a "do no harm" standard. And, since in this case the transaction will not result in any net increase in competition, no assumptions can be made as to the ability of some future level of competition to assure that any net gains to the acquiring company – Frontier in this case – will flow through to ratepayers or to the California economy. The Joint Applicants were presumably aware of these requirements for net gains to ratepayers and to the economy overall before embarking upon their deal. The

Commission cannot rely upon Dr. Aron's notion that these societal benefits will arise through a sort of trickle-down theory (*à la* "What's good for General Motors is good for the USA"), that transactions that create value for their participants will also create value for consumers and for society as a whole:

> ... transactions occur and are economically valuable if the purchaser can create greater value from the transacted assets than can the seller. A purchaser can create greater value than can the seller if the purchaser's assets, capabilities, business strategy, access to inputs or markets, and/or managerial talents combine with the acquired assets in a way that enhances their value relative to their best use with the seller. If that is the case, the value of the assets to the purchaser exceeds their value to the seller, and a price can be reached that is mutually agreeable. Such a transaction necessarily creates social value that inures to the parties, to consumers, and to the economy as a whole.[53]

But "trickle down" does not work in the absence of a competitive market capable of forcing the acquiring company to share the "greater value created by the transaction" with its customers, employees, or the economy in general, rather than to repatriate its gains in the form of increased dividends to its out-of-state corporate parent. §854 represents an attempt by the California legislature to precisely assure that such gains do flow downstream. Yet Dr. Aron appears to believe that nothing more than a "do no harm" requirement is sufficient, and in so doing seeks to make §854 a nullity:

> It harms consumers and shareholders—in short, it harms society—to discourage efficient transactions. It is vitally important in our economy that assets be able to flow to the party that can create the most value from them because the ability of markets to direct resources to their most highly valued use

53. Aron August 24 testimony, at para. 79, footnote references omitted.

> is an essential source of economic growth and development. Imposing conditions on transactions that increase their costs to the participants – such as requiring Verizon, contrary to the terms of the agreement, to bear costs of upgrading or repairing Verizon California's assets – is equivalent to imposing a tax on transactions.[54]

This statutory standard for approval of this transaction is clearly not "do no harm," and such transparent attempts to misstate or attack the merits of the statute must be rejected.

Acceptance of Mr. Jureller's current contention that Frontier's incremental annual debt and equity costs for carrying its $10.54-million purchase will exceed the cost savings it expects to realize from the avoided overhead allocations would require that the Commission attribute Verizon's gain on the sale of these assets as a §854(b)(2) economic benefit to be shared with ratepayers.

31. In his August 24, 2015 testimony, Mr. Jureller has, for the first time, advised the Commission as to an important financial impact of the transaction (the subject of Question 7 of the *Amended Scoping Ruling*), specifically that the total estimated incremental annual cost of capital to Frontier of approximately $1.015 billion will exceed the annual cost "savings" of $700 million,[55] and now admits that the "operating costs for California are not expected to be reduced."[56] As I have discussed above, based upon Mr. Jureller's August 24, 2015 testimony, the Commission would be required to find that the transaction does not satisfy §854(b)(1) because it does not produce short-term or long-term economic benefits. However, separate and

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54. Aron August 24, 2015 testimony, at para. 80.

55. *Id.*, at 16, A16.

56. *Id.*, at 11, A10.

apart from Frontier's side of the transaction, and as I have discussed in my July 28, 2015 Reply Testimony at page 140 and on Table 13, Verizon will realize a gain on the sale of its California ILEC in the amount of BEGIN VERIZON CONFIDENTIAL <<[redacted]>> END VERIZON CONFIDENTIAL. Based on that, I calculated the 854(b)(2) ratepayer allocation at BEGIN VERIZON CONFIDENTIAL <<[redacted]>> END VERIZON CONFIDENTIAL. The principal argument Verizon advances in opposition to a requirement that it share this gain with ratepayers is that the Commission has never imposed such a requirement in the past and, referring to Dr. Aron's testimony, Mr. McCallion states that such a requirement "would have the effect of deterring beneficial mergers and sales, which would be economically damaging to the State."[57] But in this particular case, and based upon Mr. Jureller's analysis, it is not at all clear that this particular transaction is actually "beneficial" to California or to California ratepayers or to state and local economies, as expressly required by §854(c)(6), or that it will "[m]aintain or improve the financial condition of the resulting public utility [Frontier in this case] doing business in the state" as required by §854(c)(1). Question (15) of the *Amended Scoping Ruling* asks "What are the potential negative consequences of the proposed transactions? Are any conditions necessary or warranted to mitigate any such consequences?" In the absence of specific economic benefits *to Frontier* and the negative financial implications arising from its increased financing costs of carrying the above-book-value purchase price, recognizing the Verizon gain on the sale of these assets to Frontier as subject to §854(b)(2) is necessary to mitigate the adverse financial consequences of the transaction for Frontier.

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57. McCallion August 24, 2015 testimony, at 15, citing Aron August 24, 2015 testimony, at 39-42.

32. The principal source of the negative economic benefit cited by Mr. Jureller is the $10.54-billion purchase price that Frontier is paying to Verizon. The three Verizon ILECs involved in this transaction are currently being carried on Verizon's books at BEGIN VERIZON CONFIDENTIAL << [redacted] >> END VERIZON CONFIDENTIAL.[58] Thus, following its takeover of the three ILECs, Frontier will be required to finance and to incur incremental annual costs of debt and equity capital to support the additional BEGIN VERIZON CONFIDENTIAL << [redacted] >> END VERIZON CONFIDENTIAL of net investment that simply does not exist for Verizon. Put differently, *Verizon's gain from this transaction is the principal source of Frontier's loss*. More importantly, *Verizon's gain actually exceeds Frontier's loss*. Thus, the Commission can find that §854(b)(1) is satisfied *but only when the economic outcomes for both Verizon and Frontier are combined*. But if the Commission were to accept Mr. Jureller's conclusion that the annual incremental costs of debt and equity financing that Frontier will incur are greater than the annual cost savings that Frontier will realize and, on that basis, conclude that there is no §854(b)(2) short-term and long-term economic benefit *for Frontier* not less than 50% of which is to be allocated to ratepayers, it must correspondingly treat Verizon gain on the sale of the California ILEC as a qualifying economic benefit, and apply §854(b)(2) to that gain. Without inclusion of the economic benefit of this transaction *to Verizon* in its analysis, the Commission would have no choice but to find that the threshold requirement of §854(b)(1) is not satisfied, and that the transaction must therefore be rejected.

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58. Verizon HSR, at Bates no. A1503005VZ60165.

Competitive marketplace forces cannot be relied upon to assure that the short-term and long-term economic benefits of the transaction will flow-through to ratepayers.

33. Separate and apart from the threshold question as to whether there actually are any net short-term and long-term economic benefits of the transaction a portion of which are required to be allocated to ratepayers, the Joint Applicants response to the issues raised by the *Amended Scoping Ruling* is that there is no need for any explicit ratepayer allocation or condition for approval relating to §854(b)(2) because, they contend, the California telecommunications market is highly competitive, and that the economic benefits inuring to Frontier will be flowed-through to ratepayers via competitive marketplace forces. In order for that "flow through" to actually take place, not less than 50% of the annual cost savings being projected by Frontier would need to be reflected in corresponding reductions in the prices of Frontier's services. However, there is no basis to expect this outcome, and nowhere either in their opening (May 11, 2015) testimony or in their August 24 testimony responding to the *Amended Scoping Ruling*, have either Frontier or Verizon offered any evidence to that effect. Rather, the entirety of the support being offered by the Joint Applicants for this proposition consists of (1) limited, largely anecdotal evidence as to the *existence* of competition – and not as to the effect of such competition upon Verizon's or Frontier's prices – and (2) citations to certain findings regarding competition extracted from the Commission's 2006 Uniform Regulatory Framework ("URF") decision.[59] Except for these references to anecdotal evidence of competition (e.g., "Between 2010 and 2014, Verizon

59. D.06-08-030.

California lost 42% of its access lines”[60]), the Joint Applicants offer no formal analysis, or even a framework for an analysis, that would actually demonstrate that competition is *sufficient* to assure that not less than 50% of cost savings and other identified “short-term and long-term economic benefits” will flow to ratepayers. Even Prof. Teece avoids being pinned down to specifics: “This competition will cause a significant fraction of the benefits from the Transaction to flow through to consumers in the form of increased consumer surplus as higher valued service options become available at more competitive prices.”[61] But “significant fraction” is not the same as “not less than 50%,” and his assessment still falls far short of assuring the Commission that “not less than 50%” of the benefits of the transaction will flow to ratepayers through competitive marketplace forces. Moreover, nowhere does Prof. Teece offer any specific linkage between the transaction and these “higher value service options,” or show that any of these “higher value service options” are associated with the “historically rate-regulated services” that, according to Frontier, are the only portion of the ILEC’s business to which §854(b)(2) even applies, nor demonstrate that the prices of these “higher value service options” will actually be forced to reflect the purported efficiency gains and other economic benefits of the transaction. Indeed, as I have already shown, Verizon’s rates for its wireline services are the highest in the state, are higher, in some cases by a factor of nearly double, than the price for equivalent “intermodal” competitive alternatives, and have been steadily increasing

60. Abernathy August 24 testimony, at 12, A10.

61. Teece August 24 testimony, at 14, A19.

over time *even in the face of the "robust competition in the local voice market" that Prof. Teece claims to exist*.[62]

34. Nearly ten years have elapsed since the issuance of the *URF* decision in 2006, and the evidence that was considered by the Commission in reaching its findings regarding the effectiveness of competition is even older. These nearly ten-year-old findings need to be updated to reflect current market realities. The Commission should not rely upon the URF findings as to the presence of effective competition without first considering *current* evidence. In response to Question 10 of the *Amended Scoping Ruling*, the Joint Applicants offer no current analysis to support their contention that competition is and will be sufficient to assure that the transaction will comply with the specific allocation requirements of §854(b)(2), but instead urge the Commission to rely upon the findings in the *URF* decision. For example, Prof. Teece testifies that:

> In California, in response to *findings* about robust competition in the local voice market, the 2006 URF decision eliminated rate regulation for retail voice services offered by California's large and mid-sized ILECs, including Verizon and Frontier. The 2006 URF decision is built on a *finding* that the market will deliver benefits to consumers without the need for regulatory intervention.[63]

That reliance is seriously misplaced; there is in fact no finding anywhere in the URF order that would support the inference that cost savings and economic benefits arising *from this transaction* will flow through to ratepayers as required by §854(b)(2), and there is considerable *empirical*

62. *Id.*, at 10, A13.

63. *Id.*, emphasis supplied.

evidence based upon actual experience in the California wireline service market over the decade since the URF decision was adopted that compels precisely the opposite conclusion.

35. Moreover, the primary focus of the URF proceeding and of the resulting regulatory paradigm was *local voice telephone service*. While the URF Decision includes discussions of "broadband," including what have since proven to have been unrealistic speculations as to the promise of "broadband over power lines" ("BPL") as providing a third transmission path into the home,[64] nowhere in the URF decision is the term "broadband" actually defined. "Broadband" appears only twice among the 119 separate Findings of Fact, and appears nowhere among the 64 Conclusions of Law or in any of the 23 Ordering Paragraphs. And the two findings relating to "broadband" seem to have been included for the limited purpose of providing support for the conclusion that VoIP service provided over broadband is a competitive alternative to ILEC-provided wireline local voice telephone service. Finding of Fact 43 states that "Broadband is available to most Californians," and Finding of Fact 44 notes that "[w]herever a broadband connection is available, VoIP provides a competitive alternative to circuit-switched telecommunications services."[65] There is no reference in the URF decision to §854, nor is there any finding that rates will be reflective of costs or that they will decrease in response to cost reductions that result from a change of control transaction or, for that matter, from any other factor. Nothing in the URF decision would support the inference, as relied upon by the Joint

64. D.06-08-030, at 69.

65. D. 06-08-030, at FOF 43,44.

Applicants, that efficiencies gained through mergers or other change of control transactions, including in particular the one at issue here, will be flowed through to ratepayers.

36. The URF decision rested upon several key assumptions: (1) the existence of intermodal competition; and (2) that this competition would protect consumers and give them just and reasonable rates. The Commission did not say in URF that carriers could raise rates to any level – those rates must be "just and reasonable" as required by P.U. Code section 451.[66] Arguably, the current prices for Verizon's landline services are not "just and reasonable." The Commission also stated in URF that: "We will ensure that basic residential service remains affordable ..."[67] and "There is a need for the Commission to remain vigilant in monitoring the voice communications marketplace in order to ensure that the market continues to serve California consumers well."[68] Thus, it is clear that in URF the Commission did not simply state that carriers are free to charge any rates that they wish; those rates must be "just and reasonable." And the Commission did not state that it would no longer regulate any aspect of the telecommunications market in California. Rather, the Commission recognized that it needs to "remain vigilant" in monitoring the marketplace. Just because the Commission may have

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66. See, e.g., D.06-08-030 at 4 fn. 6, 33 fn. 133, Cal. Pub. Util. Code §451: "All charges demanded or received by any public utility, or by any two or more public utilities, for any product or commodity furnished or to be furnished or any service rendered or to be rendered shall be just and reasonable. Every unjust or unreasonable charge demanded or received for such product or commodity or service is unlawful. Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary [sic] to promote the safety, health, comfort, and convenience of its patrons, employees, and the public. All rules made by public utility affecting or pertaining to its charges or service to the public shall be just and reasonable."

67. D.06-08-030, at 156.

68. D.06-08-030, at 268, Finding of Fact 73.

determined that the telecommunications market was competitive ten years ago does not mean that it would reach the same conclusion today. Indeed, the above-book-value price ($10.54-billion) that Verizon has established for the three Guava ILECs captures for Verizon the capitalized value of the economic rents inherent in the supracompetitive rates that Verizon has been able to set and maintain for the three companies' detariffed services as demonstrated in the *Pricing Survey*. More importantly, the fact that Frontier is willing to pay this above-book-value price reflects Frontier's expectation that it will be able to sustain those same supracompetitive rates going forward.

37. It is noteworthy that two of the five CPUC Commissioners who had voted to approve D.06-08-030 nevertheless expressed serious misgivings about the action that the CPUC was taking. In his concurring statement to the *URF* order, Commissioner Geoffrey F. Brown offered several admonitions as to what he viewed as multiple evidentiary and policy shortcomings of the URF ruling:

> This Commission must also correct the shortcomings of this decision, which errs by failing to more closely examine the metrics by which it should determine the effectiveness of competition. This decision also errs by failing to establish a procedural mechanism to ensure a forum for that examination.
>
> ... the overwhelming majority of homeowners and renters still have to purchase residential landline service from a geographically-dominant incumbent monopoly. As to this huge segment of the market, discussions about wi-fi, VoIP, and cellular competition miss the point. Currently, monopolists own these (and most other) segments of the market, lock, stock and barrel. Until security and reliability issues are addressed by competitors and regulators, incumbent companies will retain their inordinate market share and power.

> This decision's basic infirmity is its core conclusion (at p. 111) that incumbents "lack the ability to limit the supply of telecommunications services in (sic) voice communications market, and therefore lack the market power needed to sustain prices above the levels that a competitive market would produce. We find that this result holds throughout their service territories and for both business and residential services." In reality, there is insufficient evidence to support this conclusion; it is founded on its author's fond hope that wishing will make it so, coupled with a general recognition that its assertion stands as a condition precedent to sweeping away the existing regulatory scheme.[69]

Commissioner Dian Grueneich voiced similar misgivings as well:

> In the Order Instituting Rulemaking (OIR) issued last year, we stated that "the adopted framework should ensure, to the extent practical, that every person and business in California has access to modern, affordable, and high quality telecommunications services." The Decision fails to meet that commitment in several ways.
>
> First, all recognize that there is variation, geographically and by market segment, in telecommunication services offered in California. The basic thrust of this Decision is that market mechanisms will drive companies to offer customers a range of competitive services. While I believe this is generally true, I disagree with the statement on page 111 of the Decision that "[o]ur review of the extensive record in this proceeding convinces us that Verizon, SBC, SureWest, and Frontier lack the ability to limit the supply of telecommunications services in telecommunications markets, and therefore lack the market power needed to sustain prices above the levels that a competitive market would produce." This statement may be true for some geographic areas and some market segments but not for all. I therefore disagree with finding of fact 50 on page 247.
>
> The second way in which the Decision fails to meet the commitment of the OIR is the absence of reasonable safeguards to assure that customers have affordable service. ... The Decision does not provide an opportunity during the transition period for the Commission to ensure that competition is adequate to support the final removal of the price cap. The Decision does not provide an

69. D.06-08-030, Concurrence of Commissioner Geoffrey F. Brown, at 2-3.

opportunity at the end of the transition period for consumers to be assured that they will have the "access to modern, affordable, and high quality telecommunications services" that the OIR and this Decision promises.

This leads me to my third area of concern: the failure of the decision to include even the most basic monitoring, reporting, and audit commitments. We act today without any assurance of monitoring or auditing before and/or after 2009 to ensure we meet and continue to meet our commitment set forth in the OIR – that every person and business in California has access to modern, affordable, and high quality telecommunications services.

I am very troubled that the Decision specifies that the criteria to be used to determine reporting requirements will be whether the cost of the reports outweighs the benefits. A far more appropriate statement would have been that the Commission will require all reports and audits necessary to determine whether our commitment in the OIR is being met.

The decision's focus on industry cost rather than consumer service does not engender consumer confidence in this Commission's commitment to consumers.

Finally, I note that while the text of the Decision states an intent to conduct a Phase Two on reporting requirements, there is no Ordering Paragraph requiring this next phase, and thus parties have no assurance as to the scope, timing, or even existence of a second phase establishing the key reporting and auditing requirements.

Despite my serious concerns, I vote today for the decision because we do need to move to simplify and update the 18-year-old regulatory framework for California and provide flexible pricing in the markets that are competitive.

This Decision states that "competition doesn't have to be perfect." For the sake of California's most vulnerable consumers, the Commission could and should have acted to ensure that competition is less imperfect.[70]

70. D.06-08-030, Commissioner Dian M. Grueneich Concurrence Regarding Decision on the Assessment and Revision of the Regulation of Telecommunications Utilities, at 2-4.

38. The telecommunications landscape has undergone massive changes since the Commission considered and adopted the URF. An ILEC/cable MSO duopoly now pervades the residential wireline voice services market. Competition in this space consists of over-the-top ("OTT") VoIP services that require the customer to have also purchased broadband access from one of these same two duopoly providers. While wireless voice services are considered by many as close substitutes for and alternatives to wireline telephony, the presence of wireless appears to have had little effect either in constraining wireline price levels or in forcing wireline providers to include within their basic service offerings the various features that are almost always provided at no additional charge with even the most basic wireless rate plan – features like call waiting, caller ID, voice mail, and "free" nationwide long distance calling. There have also been many changes at all levels of the telecommunications arena – transition of the public switched network to become a multi-service platform (voice, broadband, video); technological migration from TDM standards and copper loops to IP and copper, fiber, coaxial cable, and radio frequency; exponential growth of data transported over the network; and the recent reclassification of broadband as a telecommunications service by the FCC in the *Open Internet Order*.

39. Underlying the URF and the various other state and federal deregulatory initiatives is the *assumption* that the level of competition for the legacy incumbent provider's services has matured to the point where marketplace forces can be reliably counted upon to replace regulation in constraining the incumbent's pricing and conduct. Much of the debate that has arisen over the past several decades – and in particular since the enactment of the 1996 federal Telecommunications Act – has been directed at determining when the level of competition is

sufficient to supplant regulation in protecting consumers and in achieving a "competitive outcome." While the Joint Applicants here, and most other incumbent LEC and cable MSOs, now consider the matter fully settled, as the two concurrence statements by Commissioners Brown and Grueneich demonstrate, this core assumption that competition can be relied upon to replace regulation was never actually tested nor subjected to any formal analytical framework. The Joint Applicants here offer nothing new in this regard – only largely meaningless anecdotes regarding intermodal competition and market share losses, but no actual demonstration that the level of competition that a post-transaction Frontier will confront is sufficient to force it to share "not less than 50%" of the claimed efficiency gains arising from the transaction with ratepayers. In any event, there is no finding of fact, no dicta, no discussion of any sort, anywhere in the URF decision from which an inference could be drawn as to the specific "not less than 50%" requirement of §854(b)(2). At best, the URF decision makes certain findings as to the presence of competition and that the need for traditional economic regulation has been supplanted by such competition. That assessment, however, is simply inapposite to the specific finding that is required here, and which is nowhere addressed in the URF decision.

Factors affecting the extent to which competition can be relied upon to assure that the requirements of §854(b)(2) are satisfied by the proposed transaction.

40. Question 15 in the *Amended Scoping Ruling* asks the parties to identify "the potential negative consequences of the proposed transactions" and whether "any conditions necessary or warranted to mitigate any such consequences." As currently structured, it is not at all clear that, from a financial standpoint, the transaction will provide any short-term or long-term economic

benefits to ratepayers or otherwise benefit the state and local economies. And even if such benefits will arise, competition in the relevant product and geographic markets is not sufficient to assure that such benefits will not be retained, in their entirety, by Frontier. At the most superficial level, one might readily conclude that the voice telephone service market is now effectively competitive. But superficial analysis of this sort can lead to inaccurate conclusions. The extent to which "competition" can realistically be relied upon to satisfy the requirements of §854(b)(2) specifically with respect to the Verizon/Frontier transaction requires more detailed analysis, certainly more than the types of superficial enumerations as to the presence of one or more putative "competitors:"

(1) The mere existence of any provider offering similar or substitute services is not by itself sufficient to constrain the market power of the incumbent; multiple providers should each be capable of achieving minimum efficient scale in order for the market to be considered as capable of supporting effective competition.

(2) The number and the relative size and strength of competing firms must be sufficient to engender actual price competition.

(3) Competitor or customer dependence upon "essential" inputs from an upstream provider with substantial market power can undermine the effectiveness of competition, especially if the upstream provider is itself involved in the same downstream market.

(4) Persistent refusal on the part of a facilities-based service provider to deal with downstream entities is itself compelling evidence of that provider's market power.

(5) Persistently excessive earnings levels of the dominant firm or firms are an indication of a lack of effective competition.

(6) The presence and persistence of onerous terms and conditions in customer service adhesion agreements provide further evidence of a fundamentally noncompetitive market

(7) The relative positions of dominant firms may change over time without necessarily resulting in a material change in the level of market concentration.

(8) Persistent service quality and customer service issues are indicative of a lack of effective competition.

In the following sections, I will examine each of these principles as they apply to the Joint Applicants here.

The mere existence of any provider offering similar or substitute services is not by itself sufficient to constrain the market power of the incumbent; multiple providers should each be capable of achieving minimum efficient scale in order for the market to be considered as capable of supporting effective competition.

41. The presence of a single competitor will rarely, if ever, operate to constrain the dominant incumbent's exercise of market power or its ability to set prices at supracompetitive levels. If the rival is relatively small, it will almost always operate as a "price taker," responding to, but unable to influence, the incumbent's price. If the rival's size and market share is roughly comparable to that the incumbent, as in the case of an ILEC and an incumbent cable MSO competing in the same geographic market for broadband access, the duopoly will most likely engage in a tacit market allocation protocol whose effect will be to maintain prices well in excess of the competitive level without any realistic possibility of competition actually succeeding in bringing prices down to a competitive level. Even though the major ILECs (principally AT&T and Verizon) have been offering both broadband access and MVPD linear video services in direct competition with the local cable MSO for some time, price levels for both of these services, and for double-play and triple-play bundles of voice, broadband and video, have been steadily increasing for many years. Moreover, I am not aware of any evidence that broadband or cable TV prices are any lower in areas with the ILEC and the MSO directly compete vs. those areas served by only one or the other.

42. Industries characterized by high fixed costs typically exhibit a property of "decreasing average costs" as output levels increase. As Figure 1 illustrates, economic theory suggests that as output increases, average and marginal cost at first decreases, but beyond a certain level, marginal cost begins to increase and, as a result, average cost begins to rise above its minimum level. There are a variety of explanations for this outcome. For example, once the fixed capital assets are at their capacity, additional fixed assets would need to be acquired in order to expand

output further. (The marginal cost of an additional airline passenger on a plane with empty seats is close to zero, such that the average cost per passenger declines until the last seat is filled. Once that occurs, however, it would be necessary to roll out another plane to serve the next passenger, resulting in a large jump in marginal cost and an increase in average cost.)

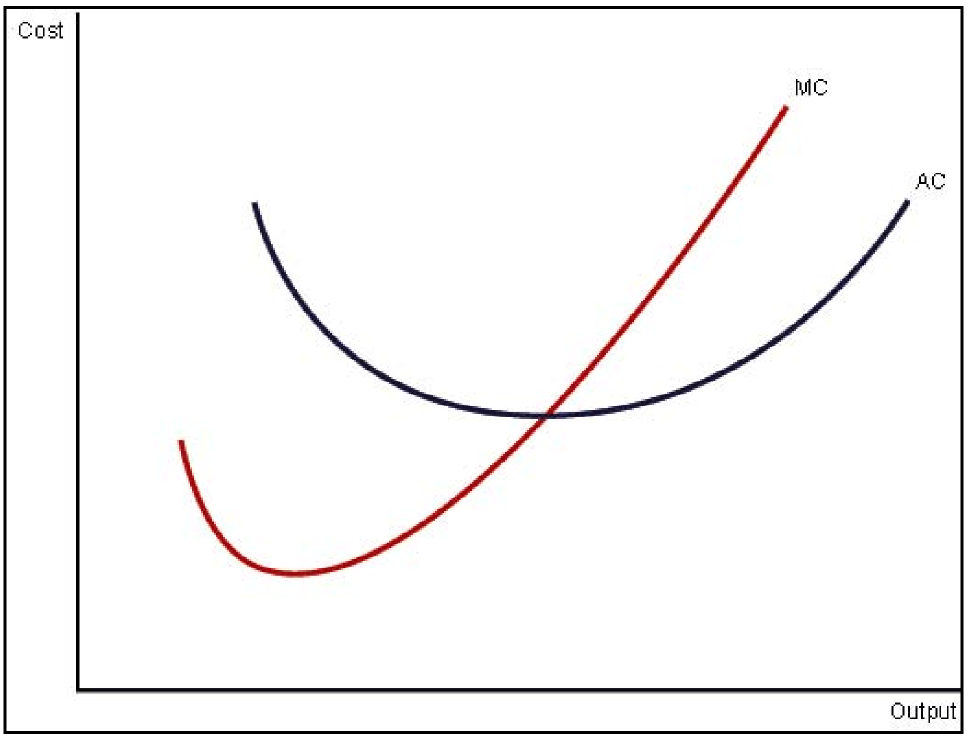

Figure 1. As output increases, average and marginal cost at first decrease, but beyond a certain level, marginal cost begins to increase and, as a result, average cost begins to rise above its minimum level.

43. Minimum Efficient Scale ("MES") is typically expressed as the percentage (share) of the total market where minimum average cost is achieved.[71] Industries characterized by relatively low MES can support multiple competitors; where the MES is at or near 50%, only two efficient firms can coexist. And where the MES materially exceeds 50%, the market will be capable of supporting only one incumbent – this is the "natural monopoly" situation. The cost of constructing a broadband distribution infrastructure is driven primarily by the number of *homes passed*, rather than by the number of *homes connected* (i.e., revenue-producing customers). Once the cable or fiber facilities have been put in place, the costs of adding additional customers to an existing network is minimal. Thus, the "first mover" enjoys a significant cost advantage over any potential "overbuilder," since the latter will be confronted with up-front capital costs that, from the perspective of the incumbent, had been incurred in the past and are now sunk. Empirical evidence confirms this condition. From the analysis of the Commission's Broadband Availability Database that I undertook in connection with the Comcast/TWC/Charter/Bright House merger (A.14-04-013, A.14-06-012), I found that of the 10.6-million California households passed by the four applicants in that case, only 2.48-million, or about 23.4%, were also passed by at least one competitor offering service at download speeds of 25 mbps or greater.[72]

71. See Tirole (1988) for discussion of MES and barriers to entry. Jean Tirole, *The Theory of Industrial Organization* (1988), Cambridge: MIT Press, pp. 305-311.

72. Declaration of Lee L. Selwyn, A.14-04-013, A.14-06-012, December 10, 2014, at para. 58, Table 10.

44. Those segments of the telecommunications industry that require a physical last-mile distribution infrastructure – ILECs and cable companies – typically exhibit relatively high MES. Facilities-based local telephone service, broadband Internet access, and cable-based MVPD services have almost never been capable of supporting multiple facilities-based providers at the infrastructure level. At most, two such providers (an ILEC and a cable system) may each have achieved sufficient (if not Minimum Efficient) scale as a result of their previously non-overlapping market activities that duopoly-level competition is at least theoretically possible.

45. However, empirical evidence suggests that even this may be difficult. As I have described in detail in my July 28 Reply Testimony, in 2004 Verizon embarked upon an ambitious fiber-to-the-home (FTTH) territory-wide deployment branded as *FiOS* to provide voice service, broadband Internet access, and video, intended to challenge and capable of competing with all services being offered by the cable MSOs. In 2010, Verizon discontinued the rollout, and concurrently started selling off parts of its *FiOS*-enabled network to Frontier and other ILECs, and in its current proposed sale to Frontier, continues to do so. Other "overbuilders" have similarly been forced to scale back or discontinue broadband projects.[73]

46. By contrast, MES for wireless carriers appears to be well below even 25%. Although Commercial Mobile Radio Service ("CMRS") providers are infrastructure based (in terms of towers, antennas, radio transceivers, and wireline backhaul network facilities), much of this is under lease or under shared use arrangements, enabling individual carriers to achieve a much

73. *See,* Selwyn July 28, 2015 Reply Testimony at paras. 77, 81.

lower MES than would be possible if each carrier owned all of the infrastructure that it utilizes. Wireless carriers do not own all, or even, most, of their antenna towers, and some of these have recently been divested to third-party operators who then lease back capacity to multiple individual carriers. Backhaul facilities are leased from ILECs or other carriers, and the physical ILEC facilities themselves are shared among multiple CMRS carriers and other ILEC customers across a broad range of wireline carrier services. Competition among four or more CMRS providers is thus feasible as an economic matter, and is actually taking place.[74] Natural entry barriers exist in the case of wireless, since possession of spectrum is critical, and there is only so much to go around. Thus, entry may still be limited, but the relatively low MES is capable of supporting a sufficient number of firms such that effective competition in this market is realistic.

47. While some wireless costs are fixed across a broad range of subscriber quantities, a substantial portion of wireless carrier capital and operating expenses are scalable with volume, and tend to vary in direct proportion to the total number of subscribers. Figure 2 below plots the total number of US wireless cell sites against the total number of wireless subscribers over the period 1999-2008. Figure 3 plots the total number of US wireless carrier employees against total subscribers over the same period. In both cases, the number of cell sites and the number of employees increases linearly with respect to the total number of subscribers. Figures 4 and 5 reproduce figures I had presented in testimony before the FCC on June 12, 2008 using data

74. The fact that, on several occasions, several CMRS carriers have sought to merger does not alter this conclusion. If permitted to merge, the then-smaller number of incumbents will be able to allocate market share by following traditional Cournot-type game theory, thereby increasing prices and profits.

specific to Sprint, derived from its annual 10-K reports.[75] I plotted total operating expenses and, separately, total Property, Plant and Equipment (PPE) investment against the total number of Sprint subscribers over the period 1999 through 2005. In both cases, the operating expenses and PPE varied linearly with respect to subscriber volume.

48. As these data demonstrate, wireless investment, employment and overall operating expenses are scalable with changes in the total volume of business above a base level of fixed costs. In contrast, broadband access costs vary with homes passed, not with homes connected. Thus, where wireless services can support multiple efficient competitors, broadband access services generally cannot support more than one.

75. Statement of Lee L. Selwyn before the Federal Communications Commission *en banc* hearing on wireless early termination fees, June 12, 2008, at 10-11.

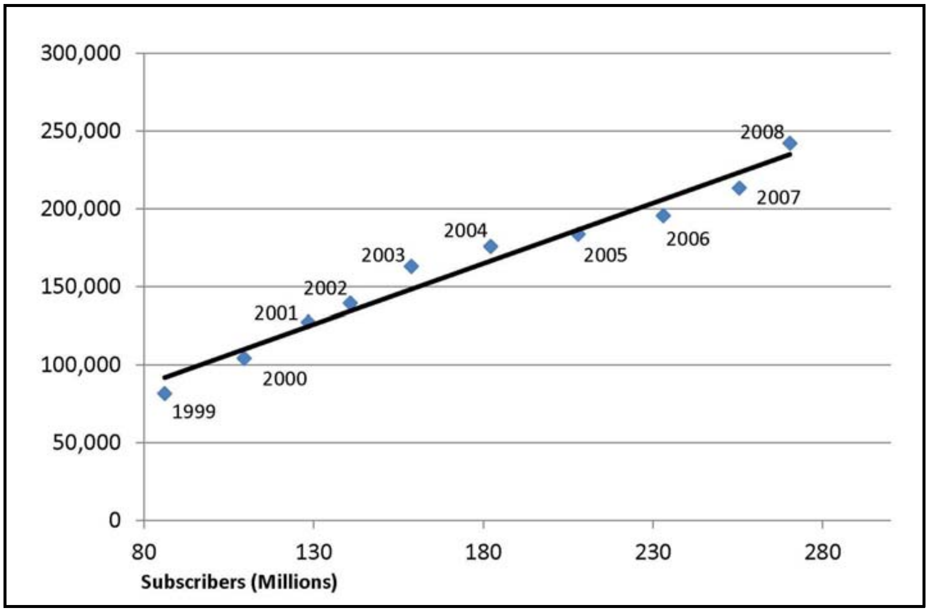

Figure 2. The number of wireless cell sites in the US grew linearly with the total number of wireless subscribers (1999-2008). Source: FCC Annual CMRS Reports, citing CTIA Annual Wireless Survey.

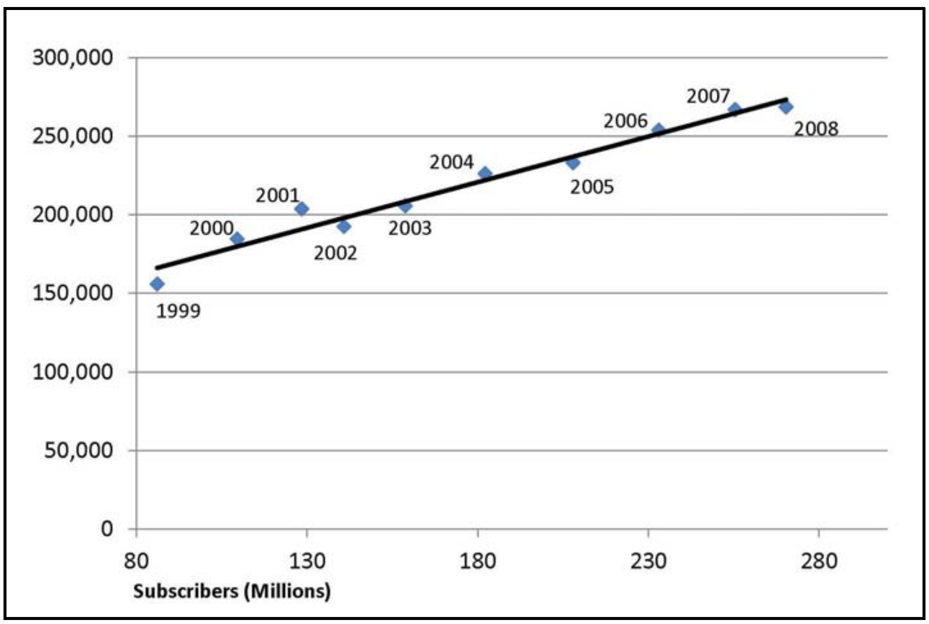

Figure 3. Wireless employment in the US grew linearly with the total number of wireless subscribers (1999-2008). Source: FCC Annual CMRS Reports, citing CTIA Annual Wireless Survey.

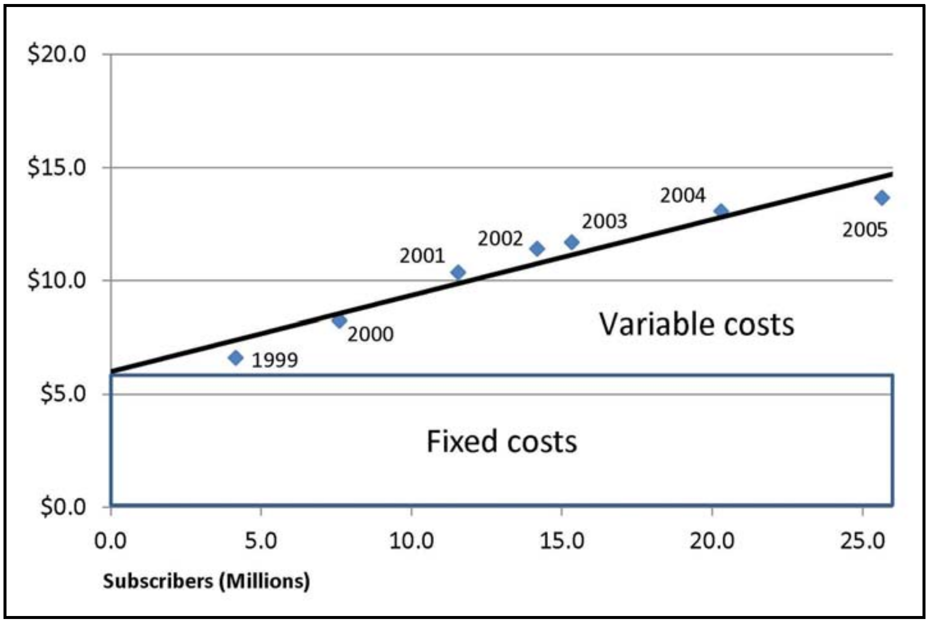

Figure 4. Sprint PCS operating expenses grew linearly with the total number of Sprint wireless subscribers (1999-2005). Source: Sprint Corporation 10-K Annual Reports.

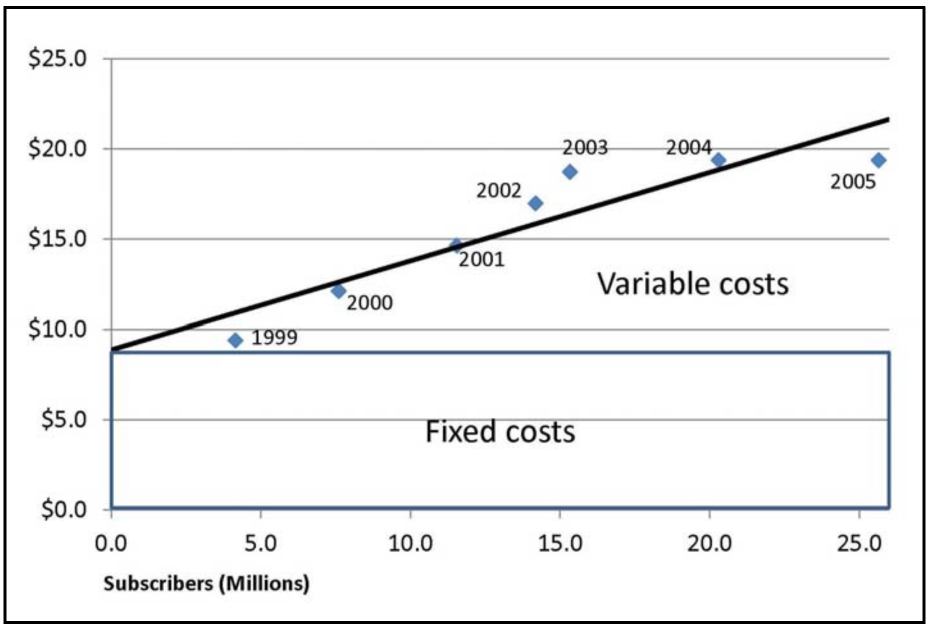

Figure 5. Sprint PCS Property, Plant and Equipment (PPE) grew linearly with the total number of Sprint wireless subscribers (1999-2005). Source: Sprint Corporation 10-K Annual Reports.

49. Long-haul interexchange and Internet Backbone services are also capable of supporting multiple providers, as has been confirmed empirically by the existence of many such firms over an extended period of time. In fact, the "long distance" segment was the first to be opened to competition, beginning in the early 1970s.

50. Importantly, and as demonstrated in the cases of wireless and long-haul transport, MES can vary significantly from one sector to the next. The MES for a successful downstream retail operation is substantially lower than for the underlying infrastructure services because fixed costs are materially lower. Competition can thus be expected to develop and thrive in such non-infrastructure segments, provided that downstream competitors are afforded the ability to obtain access to the underlying network infrastructure at cost-based rates.

The number and the relative size and strength of competing firms must be sufficient to engender actual price competition.

51. Generally, in a market with two primary incumbents of roughly equal size, the two firms will find it far more profitable to engage in a (tacit or overt) market allocation strategy than to attempt to aggressively compete against one another, particularly with respect to price. In effectively competitive markets, all firms are price-takers, and the market price moves to marginal cost. In monopoly markets, a single firm is a price-setter, and sets its price above marginal cost at a level that maximizes its economic profits. In a duopoly market, two firms carve up all of the available demand in the market. While each duopoly will exhibit unique characteristics, it is widely acknowledged that firms in duopoly markets will, like a monopoly,

charge a price in excess of marginal costs (albeit somewhat lower than might exist under a monopoly). Both firms exercise market power, and both will have the ability to make price-setting decisions. These conditions can and do exist, even in the absence of overt collusion.

52. There is in fact considerable empirical evidence in telecommunications to support the notion that "two is not enough" to achieve a competitive outcome. When the FCC initially authorized CMRS in 1982, it created two equal sized blocks of spectrum in the 800 MHZ band and granted one of the two blocks to each of two rival providers – an affiliate of a wireline incumbent LEC serving the area (the so-called "B" block) and an applicant with no such affiliation (the so-called "A" block) in each of more than 700 metropolitan and rural service areas nationwide. These initial CMRS licensees were granted without charge, at first through a competitive application process and, ultimately, through lotteries. This duopoly market arrangement in each CGSA persisted well into the 1990s.

53. In 1993, Congress authorized the FCC to issue additional spectrum licenses through an auction process,[76] increasing the number of potential rival providers in each market to four, five or in some cases six. By year-end 2000, there were six major carriers with a nationwide scope (Verizon Wireless, Cingular, AT&T, Sprint PCS, Nextel, and Alltel) and a number of others with more limited geographic presence.[77] Some of the major regional CMRS providers in

76. *Omnibus Budget Reconciliation Act of 1993*, Pub. L. 103-66, Aug. 10, 1993, 107 Stat. 312, as amended.

77. FCC, Sixth Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, rel. July 17, 2001, at p. C-4, Table 3.

existence at that time included VoiceStream, US Cellular, Western Wireless, Powertel, and Quest.[78] By the end of 2006, the number of national providers had dwindled to four. AT&T and Cingular had merged (following the mergers of parent companies AT&T, SBC and BellSouth), and Sprint and Nextel had merged. Alltel, Metro PCS, and Leap were still identified as independent companies.[79] By the end of 2010, there were approximately 292.5-million wireless handsets in the US, of which about 266.7-million – roughly 92% – were being served by the four largest carriers.[80] Alltel (which had acquired Western Wireless in 2005) had by then been absorbed into Verizon. Leap, together with its Cricket brand, were still operating independently of any of the "top four," until Leap was acquired by AT&T in 2014. By June 2014, the most recent date for which FCC data is available, there were 356.2-million "connections," of which 350.8-million – about 98.5% – were being provided by four carriers – Verizon, AT&T, Sprint and T-Mobile.[81] The FCC has been calculating the Herfindahl-Hirschman Index (HHI), a widely-accepted measure of concentration in competition analysis, on an annual basis since 2008. The following chart from the FCC's Seventeenth CMRS Report shows the progression of increases in wireless HHI from 2008 through the end of 2013. The HHI has exceeded 2,500 in each of those years. 2,500 is the threshold level for "Highly Concentrated" markets as specified

78. *Id.*

79. FCC, Twelfth Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, rel. February 4, 2008, at p. 132, Table A-4.

80. FCC, Sixteenth Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, rel. March 21, 2013, at p. 55, Table 13.

81. FCC, Seventeenth Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, rel. December 18, 2014, at p. 11, Table II.B.1. The Seventeenth Report uses "connections" instead of "subscribers" to refer to the total number of connected wireless devices, which includes, in addition to handsets and smartphones, tablets and others.

in the Department of Justice/Federal Trade Commission *Horizontal Merger Guidelines*.[82] Figure 6 below shows the wireless HHI increasing from 2,693 in 2008 to 3,027 in 2013.

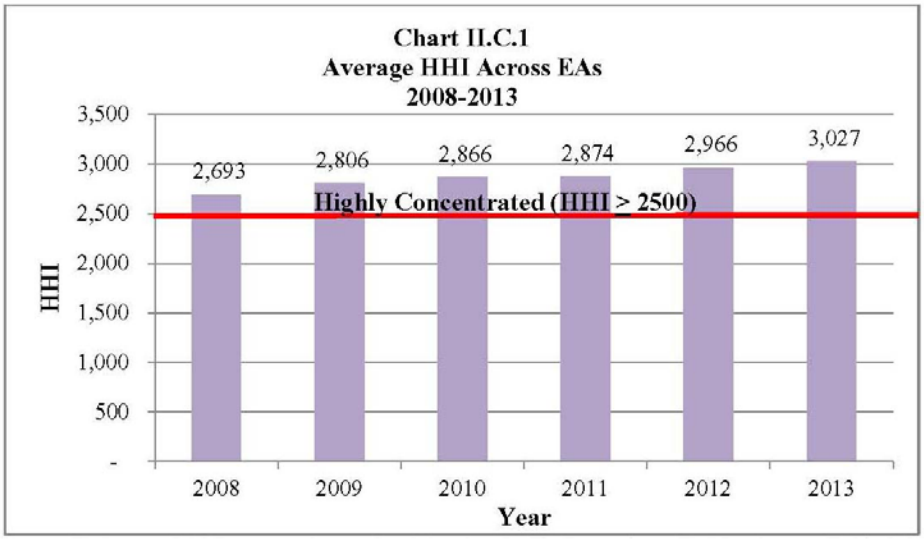

Figure 6. Progression of increases in Commercial Mobile Radio Service HHI over the period 2008-2013. Source: FCC Seventeenth CMRS Report, at p. 17, Chart II.C.1.

The FCC calculated these HHI separately for each of 146 separate Economic Areas ("EAs"), and then developed a weighted average based upon EA populations.[83] The Seventeenth Report also provides the HHIs for each of the studied EAs. Table 4 below provides the FCC 2013 HHIs for the six California EAs that were calculated:

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82. The US Department of Justice/Federal Trade Commission's 2010 *Horizontal Merger Guidelines* ("*HMG*") defines a market with an HHI in excess of 2500 as "highly concentrated," and suggests that "[m]ergers resulting in highly concentrated markets that involve an increase in the HHI of more than 200 points will be presumed to be likely to enhance market power." United States Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines 2010 edition* ("*HMG*"), at §5.3, Market Concentration.

83. Seventeenth CMRS Report, at 17.

Table 4

**WIRELESS HHIs FOR CALIFORNIA ECONOMIC AREAS
2011-2013**

EA No.	Economic Area	2011	2012	2013
162	Fresno	2953	2989	3787
165	Redding (incl. part of OR)	3299	3405	3621
161	San Diego	2581	2637	2913
163	San Francisco-Oakland-San Jose	2720	2742	2899
164	Sacramento-Yolo	2727	2741	2882
160	Los Angeles-Riverside-Orange County	2415	2437	2634

Source: FCC, Seventeenth Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, rel. Dec. 18, 2014, at 111-115, Table II.C.1.

The wireless market in all of the California EAs has, like the industry nationally, shown a steady progression of HHI increases over the 2011-2013 period, and all are now "highly concentrated."

54. There was virtually no price competition between the "A" and "B" block carriers under the duopoly arrangement, and the two wireless carriers resisted the requirement to offer wholesale services for resale, and so stand-alone retail-level competition was minimal. However, once the number of incumbents grew to four or more, price competition developed, and carriers sought out resellers and began aggressively to encourage retail-level competition through so-called "Mobile Virtual Network Operator" ("MVNO") arrangements. The mid-2000s saw some consolidation of CMRS providers, but with four national carriers and more regional competitors, price competition persisted. Over the next decade-plus, disruptive competitors such as T-Mobile and Metro PCS introduced a variety of new pricing arrangements

and forced a precipitous drop in wireless prices overall, as well as the introduction of new services – an evolution that is still underway.

55. In support of its conclusion that the proposed 2011 AT&T/T-Mobile merger would create the potential for serious competitive harms, the FCC Staff addressed the consequences of reducing the number of national facilities-based wireless carriers from four to three:

> 75. Coordinated effects are of particular concern here because the retail mobile wireless services market, being relatively concentrated and hard to enter, appears conducive to coordination. In addition, T-Mobile plays a disruptive role in this market to the benefit of buyers, and, thus, likely constrains coordination. An acquisition eliminating a disruptive firm in markets vulnerable to coordinated conduct is likely to cause adverse coordinated effects.
>
> 76. The retail mobile wireless services market would be more vulnerable to coordination post-transaction. Features of this market make it likely that the remaining three nationwide providers would be able to reach a consensus on the terms of coordination (by identifying a mutually agreeable coordinated price), deter cheating on that consensus (by undercutting the coordinated price to steal high-margin business from its rivals), and prevent new competition in this market. Because these providers offer the same plans and charge the same prices nationwide, increased coordination would most likely take the form of raising the level of prices.
>
> 77. Reaching a consensus would be facilitated by the small number of firms and the use of national prices and service plan offerings by most providers across most geographic markets. ...[84]

Notwithstanding the less-than-enthusiastic reception that the FCC afforded the idea of an AT&T/T-Mobile combination, in 2014 Sprint initiated discussions to acquire T-Mobile for a

84. *Applications of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, FCC WT Docket No. 11-65, FCC Staff Analysis and Findings, November 30, 2011, at paras. 75-77, footnote references omitted.

purported $32-billion, but later abandoned the effort. Following the announcement by Sprint that it would not longer pursue a deal with T-Mobile,[85] FCC Chairman Tom Wheeler issued the following statement: "Four national wireless providers are good for American consumers. Sprint now has an opportunity to focus their efforts on robust competition."[86] While there is no question that the wireless market is far more competitive than the market for wireline broadband access, its highly concentration condition still produces monopolistic conduct, as is evident in the universal adoption by all four national CMRS carriers of certain customer service agreement terms and conditions that would be far more difficult to enforce industry-wide under truly competitive conditions. These include, among other things, limitations on liability, mandatory arbitration and class action waiver provisions.

56. The FCC's 2010 *National Broadband Plan* determined that "[a]n initial universalization target of 4 Mbps of actual download speed and 1 Mbps of actual upload speed, with an acceptable quality of service for interactive applications, would ensure universal access."[87] But in stark contrast to the relatively competitive conditions extant in the wireless market, FCC data suggests that as of 2010, for residential broadband access at (by today's standards) these modest speed levels, only about 4% of all US households had a choice of three or more providers; 78% had a choice of two providers, and the remaining 18% had either no service at all (5%) or only

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85. "Sprint Abandons Pursuit of T-Mobile, Replaces CEO," *Wall Street Journal*, August 5, 2014, http://www.wsj.com/articles/sprint-abandoning-pursuit-of-t-mobile-1407279448 (accessed 8/19/15)

86. Statement by FCC Chairman Tom Wheeler on Competition in the Mobile Marketplace, August 6, 2014. https://www.fcc.gov/document/chairman-wheeler-statement-competition-mobile-marketplace (accessed 8/19/15).

87. FCC, *Connecting America: The National Broadband Plan*, March 17, 2010 ("*National Broadband Plan*"), at 135.

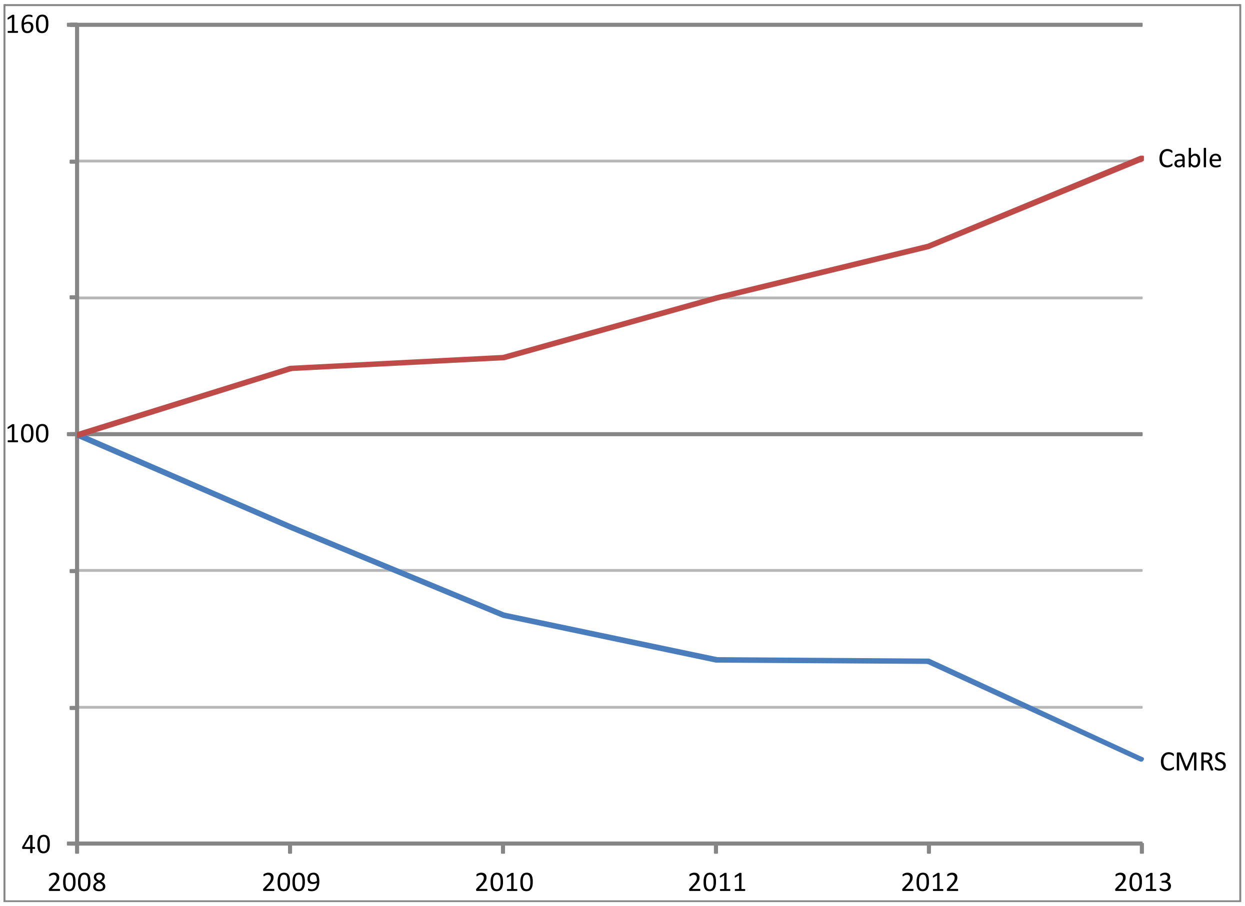

Figure 7. Prices for wireless voice and data services have been steadily decreasing, while Basic Cable prices have steadily risen. Index (2008=100) of Basic Cable average service price and Average Revenue per Mixed Unit for CMRS. Sources: FCC Cable Report; CTIA Semi-Annual Wireless Industry Survey, year end 2013.

one provider (13%).[88] Not surprisingly, and as shown in Figure 7, cable and broadband prices have been steadily increasing, while wireless prices have been dropping rapidly.

88. *Id.*, at 37.

57. As a policy matter, it is simply incorrect to view a telecommunications market with only two principal rivals, such as the market for broadband and MVPD services that will be shared between the post-transaction Frontier and the local cable MSO (which, within the bulk of the post-transaction Frontier territory, may soon consist of a single Charter/TWC/Bright House operator) as being sufficiently competitive to assure that efficiency gains attributable to the proposed transaction will be reflected in prices charged to end users.

58. In my July 28 Reply testimony, I noted (at para. 47) that "[t]he transaction will produce a minimal Herfindahl-Hirschman Index ("HHI") effect when measured statewide, well below the *Horizontal Merger Guidelines ("HMG")* threshold," which holds that "[m]ergers resulting in highly concentrated markets *that involve an increase in the HHI of more than 200 points* will be presumed to be likely to enhance market power."[89] I explained that this minimal HHI effect was due to the fact that "Verizon's operating area includes about 20.78% of all California households, whereas Frontier currently passes about 1.07%. When combined, the post-transaction Frontier California ILEC will pass ... 21.85% of all households in the state." In determining whether a merger may "be likely to enhance market power," the *HMG* looks to the *increase* in HHI relative to the pre-merger HHI. However, the *HMG* also establishes a threshold condition for "highly concentrated" markets as those whose HHI is in excess of 2500.[90] In that regard, I have attempted to calculate a broadband access HHI for the areas of California that would be

89. United States Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines 2010 edition* ("*HMG*"), at §5.3, Market Concentration, emphasis supplied.

90. *Id.*

served by Frontier following its acquisition of Verizon California's operations, utilizing the current FCC 25/3 definition of "broadband." I have made this calculation utilizing the same methodology that has been employed by the FCC in calculating wireless HHIs as discussed above. However, whereas the FCC's calculations were based upon actual "subscription" or "connection" data, the Commission's Broadband Availability Database contains only "availability" data, not actual subscriptions or customer counts, by census block. Using the most conservative approach for purposes of this calculation, I have assumed that where only one provider offers service at the 25/3 or greater speed, that providers market share *in those census blocks* is 100%. Where two providers offer 25/3 or greater speed access, I have assumed that each provider's share is 50%. And where three or more providers offer 25/3 access, I have assumed that each provider's share *in those census blocks* is 33.3%. I then calculated an overall average HHI of 7,015 weighted by the number of households in each census block. The results of this calculation are shown on Table 5:

Table 5

WEIGHTED AVERAGE HERFINDAHL-HIRSCHMAN INDEX (HHI) FOR THE 25 MBPS DOWNLOAD/3 MPBS UPLOAD BROADBAND ACCESS MARKET WITHIN COMBINED VERIZON AND FRONTIER CALIFORNIA SERVICE AREAS

	Number of Providers offering 25/3 Broadband Access			
	1	**2**	**3**	**TOTAL**
Households passed	1,079,780	1,563,511	19,394	2,662,710
Assumed market share per provider	100%	50%	33.33%	
HHIs in individual CBs	10,000	5,000	3,333	
Weights	0.4055	0.5872	0.0073	1.0000
Weighted average HHI				7,015

Source: Analysis of Round 10 California Broadband Availability Data

Note that while the overall weighted average HHI for 25/3 broadband access within the Joint Applicants' combined service area is 7,015, even in the few (0.73% of) census blocks where three providers are offering service, the HHI for those census blocks is still in excess of the 2,500 "highly concentrated" threshold. For the 58.7% of households where two providers are available (for the most part, Verizon and a local cable operator), the HHI is still at 50%. And for the 40.6% of households that confront only a single broadband provider, the HHI is at 10,000, the absolute maximum. Finally, I would point out that my HHI estimate of 7,015 is highly conservative. BEGIN CONFIDENTIAL <<[redacted][91] [redacted]

91. Frontier HSR filing, at Bates no. FTR ORA 016736.

[redacted]

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Competitor or customer dependence upon "essential" inputs from an upstream provider with substantial market power can undermine the effectiveness of competition, especially if the upstream provider is itself involved in the same downstream market.

59. In determining that VoIP provided a competitive alternative to wireline local telephone service, the URF decision included two key Findings of Fact:

FOF 43: Broadband is available to most Californians.

FOF 44: Wherever a broadband connection is available, VoIP provides a competitive alternative to circuit-switched telecommunications services."[92]

What the URF order failed to note, however, was that the principal providers of broadband, which the URF decision conceded was required in order to utilize a VoIP service, were the same ILEC and cable MSOs that were also the principal providers of wireline local telephone service. In June 2006 when the URF Decision was issued, the FCC defined the term "high-speed" to describe services that provide the subscriber with transmissions at a speed in excess of 200

92. D. 06-08-030, at FOF 43,44.

kilobits per second (kbps) in at least one direction."[93] FCC data indicate that, in California, slightly over 4-million "high-speed" access lines were being provided via ADSL and just under 3-million lines were being provided by cable modem.[94] Notably, and notwithstanding the URF order's findings, an over-the-top VoIP telephone call cannot be reliably carried on a 200 kbps broadband service. The audio channel alone requires at least 64 kbps in *both* directions, and if a VoIP call was in progress, no other concurrent use of the broadband service (e.g., for web surfing, e-mail, etc.) could be supported. The considerably higher speed broadband services that are available today can, of course, easily support over-the-top VoIP services, but the underlying sources of broadband – the ILEC and the cable MSO – have not changed. A customer can "cut the cord" on wireline (ILEC or cable) local phone service, but cannot "cut the cord" on a broadband access service from one or the other of these two providers.[95]

60. More generally, in order to produce its products or services, a firm of any type must purchase some number of different inputs – e.g., materials, equipment, energy, rights to

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93. FCC Industry Analysis and Technology Division, Wireline Competition Bureau, "High-Speed Services for Internet Access: Status as of June 30, 2006," issued January 2007, at fn. 1.

94. *Id.*, at Table 9.

95. Prior to the ascendancy of cable-based broadband, ILECs generally offered DSL as an add-on to basic local telephone service. Thus, an ILEC wireline service customer wishing to utilize an over-the-top VoIP service with his DSL access line *was still required to take and to pay for the ILEC's basic dial tone line service.* In both the Verizon/MCI and AT&T/SBC merger cases, the CPUC required the post-merger entities to offer "naked DSL" – i.e., stand-alone DSL without local telephone service – for a limited period of time. D.05-11-029, November 18, 2005, at Ordering Paragraph 3(a): "Verizon shall, by February 28, 2006, cease forcing customers to purchase separately traditional local phone service as a condition for obtaining DSL (this condition is commonly known as a requirement to provide 'naked DSL')." Similar language appears at D.05-11-028, November 18, 2005, at Ordering Paragraph 1(a). Both companies complied, but priced the "naked DSL" only slightly below the price for a combined phone/DSL service. After these merger conditions had sunset, both companies withdrew their "naked DSL" offerings altogether.

proprietary licenses and content, etc. – from a variety of external ("upstream") sources, combine those inputs in its various production processes, and through those processes and its own resources convert the inputs into its outputs. These may be final end-user products or services, or intermediate goods that are furnished to downstream companies for further conversion and processing into those firms' outputs. The "value added" by a firm is the difference between what it pays in aggregate for the inputs it purchases from other non-affiliated sources and the aggregate revenues it receives from the sales of its outputs. Labor, technology, and any other elements of the production process that are produced by the firm itself are part of its overall value-added. If the upstream market for the firm's inputs is itself subject to effective competition, the firm can negotiate with multiple suppliers and thereby shop for the best deal.

61. However, where the upstream input market is not competitive – if, in the extreme case, it is controlled by a single monopolist – then all of the downstream competitors must ultimately turn to that same common source for this "essential" input, paying economic rents to the monopolist and limiting possible competition. Where the upstream input is critical to the downstream firm's production – i.e., where the input is an "essential" product or service – the monopoly provider is in a position to dictate prices and terms to all downstream purchasers, and potentially to capture as economic rent most or even all of the economic profit that might otherwise be available to downstream value-added providers. The larger the portion of the total final product price that is being paid over to the monopoly upstream provider, the fewer opportunities for any real downstream competitive activity become.

62. Telecommunications service providers that do not own their underlying network facilities are wholly dependent upon a facilities-based provider for essential inputs. If, as is almost always the case, the upstream provider is also engaged in the same downstream market as the purchasers of these "essential" inputs, the practical ability of the downstream firm to constrain its upstream providers prices and conduct in either market is extremely limited, or close to nonexistent. The presence of one or more downstream competitors that are utterly dependent upon the upstream provider for essential inputs does not represent any sort of competitive constraint on the market.

Persistent refusal on the part of a facilities-based service provider to deal with downstream entities is itself compelling evidence of that provider's market power.

63. Where the upstream provider is itself also engaged in the same downstream final product market, it confronts the additional incentive to leverage its upstream market power to frustrate or foreclose entry in the downstream markets by charging excessive prices, by restricting or even denying access to the essential input that it controls, or other similar tactics. The US telecommunications industry is replete with instances where a facilities-based network entity would refuse to offer its core infrastructure-based services to downstream firms that wished to compete with its own downstream final product market. If a facilities-based provider confronts actual competition, it would have no financial incentive to withhold its services or access to its facilities from use by downstream competitors since, were it to do so, those entities would simply acquire their essential inputs elsewhere.

64. A central objective of the 1996 federal Telecommunications Act was to *require* incumbent LECs to provide interconnection and access to rival downstream competitors. Legislation, not competitive marketplace forces, were required in order to overcome the incumbent LECs' refusal to deal with non-facilities-based rivals. For years after the federal legislation took effect, the incumbents persisted in their "refusal to deal" strategy through protracted litigation and by imposing cumbersome requirements that worked to both delay and to increase the cost of rival interconnections and access to unbundled network elements. The cable MSOs have been even more successful in resisting any incursions into their "refusal to deal" strategy, supported by FCC decisions and, ultimately, by the US Supreme Court.[96]

65. There are now four major national facilities-based wireless providers in the US, and all four regularly offer their services at wholesale to resellers who rebrand them and use them to compete at the retail level. Yet ILECs and, more recently, cable television MSOs, have steadfastly resisted such efforts, and have engaged in protracted litigation and in regulatory/ legislative efforts to forestall any requirement that they do so.[97] "Refusal to deal" tactics of this sort could not be sustained in an effectively competitive facilities-based market; its persistence

96. *Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities, Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd 4798 (2002) ("*Cable Modem Declaratory Ruling*"), *aff'd sub nom. Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs.*, 545 US 967 (2005). See also, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking*, 20 FCC Rcd 14853 (2005) ("*Broadband Wireline Internet Access (BWIA) Order*").

97. See, e.g., *Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities, Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd 4798 (2002) (*Cable Modem Declaratory Ruling*), *aff'd sub nom. Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967 (2005); *Appropriate Framework for Broadband Access to the Internet over Wireline Facils.*, *Report and Order and Notice of Proposed Rulemaking*, 20 FCC Rcd 14853 (2005) (*BWIA Order*); *Verizon v. FCC*, DC Circuit No. 11-1355 (2014).

in the case of most last-mile wireline service providers (ILECs and cable companies) is compelling evidence that even where two "last mile" wireline providers are present, effective competition between them remains elusive.

Persistently excessive earnings levels of the dominant firm or firms are an indication of a lack of effective competition.

66. Persistently excessive profit levels on the part of market incumbents are an indication of market failure notwithstanding the nominal presence of rival providers. If a market is capable of supporting multiple providers, then the presence of persistently excessive profit levels would be expected to induce entry. Competitors would be expected to bid prices down toward cost-based levels – i.e., to levels that eliminate most, if not all, excess (monopoly) profits. This cannot occur, however, if competition is blocked or retarded due to the presence of barriers to entry, actual or contrived. A small firm may confront economic barriers to entry where its relatively small scale of operations is simply less efficient than that of its rivals, or where it is unable to achieve the "minimum efficient scale" (sometimes referred to as "minimum viable scale") of operations or, as in the case of the telecommunications industry, where large sums of "sunk" capital investment are involved.

67. Entry barriers may be artificially imposed by the incumbent provider, for example, by blocking the entrants' access to essential inputs or by forcing entrants to pay higher prices for such inputs than those available to the incumbent. Where the incumbent is itself vertically integrated such that it controls the supply of inputs essential for its rivals' operations, it can

readily erect major entry barriers unless prevented from so doing through regulation or other government intervention (e.g., an antitrust action).

68. If entry is effectively blocked or otherwise constrained, the incumbent will be able to maintain excessive, so-called *supracompetitive* prices and profit levels indefinitely. Thus, even in a market that is not subject to cost-based ratesetting as a result of an affirmative decision on the part of the regulatory agency to forbear from applying rate regulation, regulators with ratemaking authority should still require that dominant firms subject to their jurisdiction provide detailed financial reports separately for each market segment in which they operate.[98] If persistently excessive profit levels are observed, it is reasonable to conclude that effective competition is not present in such markets.

69. However, in complex corporate organizational structures (Verizon, for example, has more than 400 affiliates and subsidiaries, domestic and foreign), there is a strong potential for *misallocation* of costs that are common to multiple entities and for cross-subsidization of relatively competitive business activities with excess profits earned in more monopolistic markets. If a cost reporting requirement is limited solely to a single regulated entity, creative cost accounting and cost allocation techniques can shift costs to the regulated affiliate, thereby understating its actual earnings and revenue/cost relationships. As the transaction at issue in this case confirms, Verizon appears to be engaging in such misallocation tactics by imposing some

98. Segment-level reports are necessary because a consolidated company-wide report may conceal the presence of excessive profit levels in some segments that are then used to effectively cross-subsidize operations in more competitive segments.

$700-million in "allocated" overhead costs to the three ILECs being sold to Frontier, even though its California ILEC entity is no longer subject to price and earnings-based regulation. Complex corporate structures and involvements in multiple markets present formidable challenges to regulators attempting examine earnings levels as a means of assessing whether the removal of price regulation has resulted in excessive prices and earnings. For example, the presence of the excessive Verizon corporate overhead allocations on Verizon California's income statement results in an *understatement* of Verizon California's pre-tax earnings by approximately $378-million annually. But the difficulty in undertaking this type of analysis should not prevent it from being attempted. Regulatory agencies have been forced to deal with complex corporate structures and inter-affiliate transactions for decades, and have been successful in "piercing the corporate veil" in unraveling such transactions. It is difficult to imagine that a definitive conclusion as to the effectiveness of competition in constraining an incumbent carrier's prices and earnings can be reached in the absence of a detailed and thorough analysis of its earnings over time.

The presence and persistence of onerous terms and conditions in customer service adhesion agreements provide further evidence of a fundamentally noncompetitive market

70. Traditionally, for services that were subject to rate regulation and a "just and reasonable" ratemaking standard, the terms and conditions governing the provider/customer relationship were set out in and governed by filed tariffs. In the event of a dispute, customers could bring complaints regarding their service to the CPUC or other applicable regulatory body for resolution or adjudication. For disputes that could not be resolved or that had general applic-

ability across a number of individual consumers, consumers or the commission itself could initiate a formal complaint proceeding. In the absence of formal tariffs, the terms and conditions of the provider/customer relationship are typically documented in a contract between the two parties. Such "customer service agreements" ("CSAs") are typically adhesion contracts whose terms are dictated to customers on a take-it-or-leave-it basis, often at the point of sale or simply referenced in a telephone contact; the customer has no opportunity or ability to negotiate any aspect of such agreements. Although discussed in the context of ILEC services furnished to competing carriers rather than to matters involving individual end-user customers, at several points in the URF decision the Commission suggests that parties harmed by actions of a deregulated ILEC can turn to "a court of competent jurisdiction."[99]

71. Among the provisions common to many telecommunications CSAs are limitations of liability clauses, late payment penalties, early cancellation fees, or other provisions that are generally intended to protect the provider moreso than the customer and/or to simply increase switching costs as perceived by the customer. Additionally, many CSAs include provisions calling for mandatory arbitration of disputes and so-called "class action waivers" that prevent customers from pursuing issues that may affect many or most customers in class action lawsuits or even in class action arbitrations. A 2011 US Supreme Court decision upheld such "arbitration clause/class action waiver" provisions as enforceable.[100]

99. URF decision, D.06-08-030, at 183.

100. *AT&T Mobility v. Concepcion*, 563 U.S. 321 (2011).

72. In competitive markets, providers may attempt to differentiate their products by varying the terms and conditions of their agreements. For example, several of the smaller wireless carriers were the first to have abandoned term contracts and cancellation penalties; others have begun to quote "all-in" prices instead of a base price with undisclosed (in advertisements and at the time of purchase) fees and surcharges. The largest incumbents have since followed their smaller rivals' lead in some, but certainly not all, of these initiatives. Some of the onerous conditions extant in many CSAs might well not survive in competitive markets. That they continue to prevail in so many telecom sectors reinforces the fundamentally noncompetitive character of these services. Mitigation measures that aim to limit a provider's ability to include such onerous terms and conditions in its CSAs would provide an important constraint upon its exercise of market power.

73. A telecommunications provider's market power vis-a-vis an individual customer generally increases once the customer has initiated service. Prior to that point, the customer can shop among alternative providers where these exist, and can initiate service with the chosen provider without incurring any penalties or switching costs. That relationship changes as soon as the service is initiated such that, even if there are multiple providers in a market, the customer's ability to migrate among them will be constrained by such factors as incompatible equipment, physical effort involved in switching providers, and in many cases by contractual provisions in the CSA. Regulation of terms and conditions – which, in the case of wireless services, is still subject to state PUC jurisdiction – can help to reduce switching costs and correspondingly increase competition overall.

The relative positions of dominant firms may change over time without necessarily resulting in a material change in the level of market concentration.

74. Much of the recent erosion of demand for wireline voice services can be attributed to the growth in demand for voice services being furnished by cable MSOs. The migration of customers from one dominant firm to another may have little effect in reducing the structure of the market below the "highly concentrated" level. While the market power of ILECs may have diminished in certain respects, the market power of the incumbent cable MSOs has mushroomed in recent years. One cannot assume that merely because the MSOs started out competing with the ILECs, their respective market positions have remained unchanged.

75. To a significant extent, the MSOs have *replaced* the ILECs as the dominant provider of a wire into the home, particularly where the ILEC is not able to offer a level of broadband access that is functionally equivalent to that being offered by the local cable system or capable of meeting the current FCC minimum threshold for "broadband" of 25/3 mbps download/upload speeds. However, the monopoly now being wielded by the MSOs rivals that of the ILECs at the pinnacle of the latters' market power.

76. Regulatory policy has failed to keep pace with this evolution. As ILECs' market power has been eroded, so too has the extent of their regulation. Today, few ILEC services are subject to price regulation of any sort, and most large ILECs are no longer subject to any earnings-related constraints. But the reverse has not taken place as the dominance of cable MSOs has increased. With extremely limited exceptions, cable and broadband rates are not regulated or

constrained to "just and reasonable" levels. Moreover, since neither broadband nor basic cable had been treated as Title II Common Carriers until now, these firms were not subject to any unbundling and interconnection requirements such as those applicable to ILECs at Sections 251/252 of the 1996 federal *Telecommunications Act*. Even now that the FCC has reclassified broadband as a Title II Common Carrier service, it has expressly determined that it will, for the time being, forbear from applying most aspects of common carrier regulation including, in particular, Sections 251/252.[101]

77. In the past, when the CPUC and other state commissions examined ILEC/ILEC mergers and ILEC/IXC mergers, the parties involved were in each case all regulated common carriers (albeit some of their services may have been subject to forbearance from rate regulation at the time), and the surviving entity would likewise be subject to similar regulation as a common carrier. Mergers involving cable MSOs, even with their broadband services now being subject to limited Title II treatment, will remain largely unregulated post-merger. Where a merger of

101. However, the FCC has expressly indicated that it may modify this forbearance policy in the future if conditions warrant. *Protecting and Promoting the Open Internet*, FCC GN Docket No. 14-28, *Report and Order on Remand, Declaratory Ruling, and Order*, Adopted: Feb. 26, 2015; Rel: March 12, 2015, FCC 15-24 ("*Open Internet Order*"), at para. 203: "... Given the constantly evolving market for Internet traffic exchange, we conclude that at this time it would be difficult to predict what new arrangements will arise to serve consumers' and edge providers' needs going forward, as usage patterns, content offerings, and capacity requirements continue to evolve. Thus, we will rely on the regulatory backstop prohibiting common carriers from engaging in unjust and unreasonable practices. Our "light touch" approach does not directly regulate interconnection practices. Of course, this regulatory backstop is not a substitute for robust competition. The Commission's regulatory and enforcement oversight, including over common carriers, is complementary to vigorous antitrust enforcement. Indeed, mobile voice services have long been subject to Title II's just and reasonable standard and both the Commission and the Antitrust Division of the Department of Justice have repeatedly reviewed mergers in the wireless industry. Thus, it will remain essential for the Commission, as well as the Department of Justice, to continue to carefully monitor, review, and where appropriate, take action against any anti-competitive mergers, acquisitions, agreements or conduct, including where broadband Internet access services are concerned." Footnote references omitted.

common carriers would result in an entity that would still be subject to common carrier regulation on an ongoing basis, a merger involving MSOs is basically a one-shot event: Whatever conditions may be required to constrain the post-merger entity's exercise of market power will need to be addressed and imposed concurrent with approval; there is no second chance once that transaction is completed.

Persistent service quality and customer service problems are indicative of a lack of effective competition.

78. Firms in competitive markets tend to be more customer-friendly than in situations where the firm's customers are viewed by it as largely captive. (Recall Lily Tomlin's character Ernestine the telephone operator's famous line: "We don't care. We don't have to. We're the Phone Company.") The quantity and frequency of customer complaints, the incidence of service outages, the average time to repair, the responsiveness of customer service representatives in addressing customer service problems, all provide useful indicia of the relative level of effective competition and of its ability to produce a "competitive outcome" with respect to such situations.

79. From the testimony adduced during the 11 Public Participation Hearings ("PPHs") held in this matter, it would seem that Verizon's conduct with respect to maintenance of its copper distribution network and its response to customer trouble reports and related complaints is indicative of a lack of competitive alternatives for many current Verizon customers. And even where competitive choices may be present, Verizon may have determined that rather than devote resources to its existing California copper infrastructure it should instead simply pursue a

harvesting strategy, relying upon customer inertia and retaining customers until they get around to switching to another provider. Under either scenario, Verizon's conduct is not consistent with a robustly competitive market for basic wireline local exchange service.

The "escrow account" approach adopted by the West Virginia PSC provides a reasonable template for assuring that remedial measures will be taken to address the deteriorated condition of Verizon California's copper wireline network.

80. The Commission and the parties have devoted a considerable amount of attention in this proceeding to the current condition of Verizon California's copper network. The Commission has heard from numerous witnesses in 11 separate PPHs across Verizon territory attesting to the persistence of serious problems with Verizon's outside plant. Several ORA and TURN experts have also focused on this issue as well. Nevertheless, in response to Questions (1) and (8) in the *Amended Scoping Ruling*, Verizon has offered four witnesses (McCallion, Stinson, Maguire, Eisenach) who testify that Verizon California's network "is strong" and that "relevant metrics confirm that Verizon California's network is in good condition,"[102] that "Verizon's wireline network is in very good physical condition,"[103] that there have been "high levels of infrastructure investment and [] spending on installation and maintenance" and that "Verizon has continued to invest in, upgrade, and maintain its network, spending about $1.8 billion in capital expenditures in California since 2010,"[104] that "Verizon has a number of processes and

102. McCallion August 24 testimony, at 7.

103. Maguire August 24 testimony, at 6.

104. Eisenach August 24 testimony, at 6.

procedures in place to ensure its outside plant is in good working order and is being maintained: it inspects its facilities in accord with all applicable rules; its Proactive Preventative Maintenance Program and Infrastructure Improvement Program identify and correct conditions needing repair ...,"[105] that "Verizon California's trouble report rate has continued to decline, falling to a fantastic 0.84 troubles per 100 lines through June 2015."[106] and in general that no significant remedial measures are required to bring the Company's outside plant to appropriate service standards.

81. Frontier's witnesses, on the other hand, are of several minds on this subject. Michael Golub seems to echo Verizon's claims as to the sufficiency of its network, although at least some of his conclusions are themselves reliant upon statements by Verizon's Mr. McCallion and other ORA and TURN witnesses rather than on his own or Frontier's assessments:

> The trouble reports indicate that the Verizon California wireline network has performed well and is generally in good condition. Verizon California has met or exceeded the service quality standard (trouble reports less than six per 100lines) since 1995; and the trends are favorable as the ratio of trouble reports to lines has been declining over recent years. Most recently, Verizon California has reported 0.84 troubles per 100 lines through June 2015, a level of performance that significantly exceeds the standard. The low level of trouble reports, coupled with the ongoing trend of declining trouble reports, is evidence of the generally good condition of Verizon's California wireline network.[107]

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105. Stinson August 24 testimony, at 10.

106. Maguire August 24 testimony, at 8.

107. Golub August 24 testimony, at 6, A11, footnote references to McCallion and Baldwin testimony omitted.

Yet John Jureller states that:

> Frontier entered into the SPA with full knowledge of the state of the Verizon operations it was acquiring and an understanding that the Verizon California network and services can and should be improved.[108]
>
> * * *
>
> The Company understands that some network plant may require rehabilitation, and it has processes and plans in place to identify areas in the network where investment to do so will be required.[109]
>
> * * *
>
> The Transaction terms already account for the condition of Verizon's California network. The purchase price and other terms in the SPA were negotiated in light of the current condition of the Verizon assets and operations that Frontier is acquiring. Frontier incorporated its assessment of the quality of the Verizon network in the price it was willing to pay.[110]

It is not entirely clear how the Commission can reconcile these differing assessments as to the condition of Verizon California's existing wireline network.

82. Yet notwithstanding the evidence put forth by Verizon in this proceeding attesting as to the adequacy of the condition of its network, Verizon has not, and apparently will not, provide Frontier with any sort of warranty with respect to network condition. And while, as Mr. Jureller explains, "[t]he Transaction terms already account for the condition of Verizon's California

108. Jureller August 24 testimony, at 1, A3.

109. *Id.*, at 7, A5.

110. *Id.*, at 7-8, A6.

network," Frontier did not undertake any engineering assessments or on-site physical inspections of Verizon California's outside plant and other network resources prior to finalizing the purchase price.[111] Verizon, on the other hand, has first-hand knowledge as to the actual condition of these assets. Thus, without a warranty of any sort, virtually the entire financial and operational risk is being shifted to and borne by Frontier. Yet even without such first-hand knowledge as to the physical condition of the outside plant that it is acquiring, Mr. Jureller states that "[t]he Transaction terms already account for the condition of Verizon's California network [and that] [t]he purchase price and other terms in the SPA were negotiated in light of the current condition of the Verizon assets and operations that Frontier is acquiring. Frontier incorporated its assessment of the quality of the Verizon network in the price it was willing to pay."[112] With respect to Mr. Jureller's statement, ORA requested that Frontier provide "the specific quantitative estimate or assumptions that Frontier had relied upon to 'account for the condition of Verizon's California network' in its negotiations with Verizon."[113] ORA also asked Frontier

111. Frontier Response to ORA Data Request, Set 14, No. 1(a), September 8, 2015. "Frontier's due diligence prior to the announcement of the proposed transaction occurred over several weeks and involved more than 100 Frontier representatives and employees, including representatives from Accounting, Operations, Engineering, Customer Care Centers, Carrier, Human Resources, IT, Real Estate Regulatory, Tax and Legal, as well as outside legal, accounting, and transaction advisors, who reviewed documents and information provided by Verizon related to the operations to be acquired. Frontier has considerable experience in similar transactions over the years and it can review the approximate age of the network plant, the trouble reports, and the services provided, to get a good sense of the network. Frontier representatives reviewed publicly available information on the Internet and from other sources, and drew from Frontier's experience in previously acquiring Verizon's operations in 14 states and its experience running those operations. In addition, subject matter experts from Frontier and Verizon met numerous times, in person and telephonically, to discuss due diligence and operational issues among other matters. In the course of its review, Frontier considers a myriad of financial and performance data related to the operations to be acquired as was reflected in extensive detail in the Frontier Board of Directors materials and financial appendices ..."

112. Jureller August 24 testimony, at 7-8.

113. ORA Data Request to Frontier, Set 14, no. 1(a).

to provide "[a]ll specific facts, data, survey reports, and any other documents or memoranda, studies or analysis upon which Frontier had relied in developing the quantitative information that is being requested in (a) above."[114] None of the requested quantitative information and supporting analysis were provided in Frontier's response, other than the statement that "the [$10.54-billion] purchase price, which represented 5.9x 2014E EBITDA ... was based on the totality and aggregate business operations being acquired in Florida, Texas and California."[115] No mention is made in the Frontier Response as to any specific linkage between the purchase price and Frontier's assessment of the physical condition of the Verizon network or the amount of any remedial investment or other costs that would be required for repairs and/or replacement of impaired plant. At the very least, it is not unreasonable for the Commission to consider Verizon's refusal to warrant the condition of its network when evaluating the credibility of Verizon's testimony on this subject.

83. Question 8 in the *Amended Scoping Ruling* asks for information regarding "the service quality ... implications of the transaction for Frontier's existing and its newly acquired customers." If, based upon testimony adduced at the PPHs and from other evidence, the Commission determines that the condition of the Verizon outside plant and other network assets that are to be acquired by Frontier is deficient and that remedial measures are required, the approach taken by the West Virginia PSC in addressing what it had found to be serious deficiencies in the condition of the Verizon West Virginia network and in the quality of the

114. *Id.*, no. 1(b)(I).

115. Frontier Response to ORA Data Request, Set 14, No. 1(a).

Company's service provides a model for the Commission to consider. Because the Verizon ILEC was in the process of being sold to Frontier, the WVPSC required that Verizon deposit $72.4-million in an escrow account to fund the needed repairs, and that this deposit be made prior to the closing of the transaction. In the case of West Virginia, the service quality and change of control matters were being addressed in separate, but toward the end in concurrent dockets, and although the SPA in that transaction apparently contained similar language regarding Frontier's responsibility to pay any approval-related costs that might be imposed by regulators, because the escrow requirement in that case was imposed in a separate proceeding, it was not considered an approval-related payment within the scope of the SPA. As I understand it, as a procedural matter, the CPUC has an ongoing service quality docket in which Verizon and other ILECs are respondents,[116] so it may be possible to pursue a similar approach here.

84. However, separate and apart from the specifics of the SPA and the manner in which a payment obligation might be imposed upon Verizon, Verizon's expert Dr. Aron claims that the use of this type of device would be ineffective:

> 75. ... If the Commission were to attempt to dictate specific uses of investment funds it would have to have insight into what the company's investments would otherwise have been across the company and an ability to influence the allocation of investment funds company-wide, which is both unworkable and contrary to the Commission's policy in California for the last 26 years.
>
> 76. As a general principle, any specific mechanism for directing funds from Verizon to Frontier's network create potential distortions and deviations from the use to which Frontier would put funds if investing its own money. The preferable

116. R.11-12-001.

> alternative is that each party to the transaction bears the costs of its subsequent investment decisions. Once Frontier owns the assets, Frontier is in the best position to determine where, how, and how much to invest in the former Verizon California facilities and how much to instead allot to other equipment or functions.[117]

85. Notwithstanding Dr. Aron's admonitions, her suggestion that any specific directives as to how and where to invest capital would be a futile exercise that would fail to achieve the stated goal is belied by the experience in West Virginia, as reported by West Virginia native and Frontier expert Billy Jack Gregg. Mr. Gregg described significant network and service quality improvements that Frontier has been able to accomplish since it took over the West Virginia company in 2010. He identified improvements in the number of Network Troubles, in the number of Service Quality Complaints, Repair Performance, and in Broadband Deployment.[118]

86. Nowhere in his testimony does Mr. Gregg suggest that these improvements were accomplished by Frontier *without the use of the $72.4-million in the Verizon escrow*, nor does he assert that the same level of improvements would have been accomplished in its absence. Moreover, assuming that the $72.4-million did contribute to the improvements that Frontier was able to implement in West Virginia, it seems reasonable to also assume that had the escrow amount been greater, more would have been accomplished. Nothing in Mr. Gregg's testimony would even remotely confirm Dr. Aron's expectation that "any specific mechanism for directing funds from Verizon to Frontier's network [would] create potential distortions and deviations

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117. Aron August 24 testimony, at paras. 75, 76.

118. Gregg August 24 testimony, at 19-24.

from the use to which Frontier would put funds if investing its own money," not does it negate or undermine the potential benefit of replicating the West Virginia approach here in California.

Question 19 – the impact of the transaction on *FiOS* service and content

87. Question 19 of the *Amended Scoping Ruling* asks "What is the impact of the transaction on FIOS service and content?" and "Will Verizon's contracts to carry content be transferred to Frontier?" Frontier states that its "acceptance of CAF II funding is expected to result in broadband service of 10 Mbps/l Mbps being available to approximately 77,000 households in the CAF II designated census blocks in the Verizon California service territory," and that it "will affirmatively commit to deploy broadband at speeds of 10 Mbps down and I Mbps up to an additional 100,000 households that currently do not have access to broadband services from Verizon California."[119] Frontier also commits to provide access to 25/2 broadband to an additional 250,000 households in the Verizon California service area by 2020.[120] These commitments, together with existing broadband availability, are summarized on Table 6 below:

119. White August 24 testimony, at 9-10.

120. *Id.*, at 11-12.

Table 6

FRONTIER CALIFORNIA BROADBAND BUILD-OUT COMMITMENTS AND PROJECTED BROADBAND AVAILABILITY BY APPROXIMATELY 2020

	Current condition		Including Frontier Broadband Build-out Commitments			
	House-holds	Percent availability	Category additions	Total additions	House-holds	Percent availability
Total households passed	2,763,989					
=> 10/1 mbps	1,626,331	58.8%	190,224	440,224	2,053,331	74.8%
=> 25/2 mbps	1,516,107	54.9%	250,000	250,000	1,766,107	63.9%

Source: Melinda White August 24 testimony, at 3-4, 9-12; Abernathy Direct Testimony, at 22; Selwyn July 28 Reply Testimony, at 45, Table 4. 77,402 CAF-II locations to be added within the acquired Verizon California territory, in addition to the 12,822 locations to which Frontier had previously committed within its existing areas.

Even with these additions to its broadband network, only about 74.8% of all households in the post-transaction Frontier service area will have access to broadband offering download speeds at 10 mbps or above, and only 63.9% will have access to broadband at the 25/3 level. Put differently, five years from now, *roughly a fourth of all households in the post-acquisition Frontier California service area will still be unable to obtain even 10 mbps broadband from the Company*. Indeed, inasmuch as the CAF-II funding will extend through 2021, it is unlikely that even these build-out targets will have been achieved by the end of 2020. Clearly, Frontier will still fall far short of the 98% 25/3 coverage that ORA has proposed as a condition for approval.

88. Mr. Golub has stated "that the cost to deploy 25/3 megabits per second ("Mbps") broadband services to 98% of the Verizon California service territory is over $2 billion."[121] Elaborating this, Mr. Golub reported that "Frontier estimates that it would cost approximately

121. Golub August 24 testimony, at 2, A4.

$750 million to provide 25/3 Mbps broadband service to 75% of the Verizon California service area, nearly $960 million to reach 80%, and over $2 billion to reach 98% in the Verizon California service area."[122] He has also provided an explanation as to why the costs escalate as customer density decreases.[123] He views ORA's 98% target as "simply not feasible, especially given the highly rural nature of some of the Verizon California service territory"[124] Notably, it is not the most "highly rural" portions of the post-transaction Frontier service area that would fall into the gap between the existing 58.8% coverage and the 98% target called for by ORA and in PU Code §281(b)(1), because those most rural, highest cost areas will be the primary beneficiaries of the CAF-II funding that Frontier will receive starting in 2016. The 98% broadband availability goal that ORA proposes as a condition for approval is consistent with intended State goals to expand broadband availability to 98% of California households at speeds of at least 25 Mbps download and 3 Mbps upload. §281(b)(1) requires that the CPUC's CASF program, by no later than December 31, 2015, approve funding for infrastructure projects that will provide broadband access to no less than 98% of California households. Additionally, pending legislation, Assembly Bill (AB) 238, would require specific speeds of 25 Mbps upload and 3 Mbps download.[125]

122. *Id.*, at 11-12, A20.

123. *Id.*, at 13-14, A22.

124. *Id.*, at 13, A21.

125. See ORA Response to Frontier Data Request Set 1, no. 5(a)(6), 7(e), and 12(d).

89. I would note, however, that the $750-million figure Mr. Golub says is required to achieve 75% availability is approximately equal to my estimate of the §854(b)(2) economic benefits that Frontier is required to allocate to ratepayers. Using the §854(b)(2) allocation to fund broadband deployment would be a means of satisfying the statutory requirement.

90. If one accepts Mr. Golub's financial assessment, it may be unreasonable to expect any nonregulated profit-seeking entity to commit the large amount of capital that would be required to achieve what they would view as a very small incremental gain in coverage. In my July 28 Reply testimony (at para. 82), I noted that the near-universal "deployment [of wireline telephone service" was accomplished under what might best be described as a public-private partnership supported by a regulatory model that relied upon private capital with public underwriting of risk, providing investors with a guaranteed return on and recovery of their investment while protecting consumers from excessive prices where competitive market constraints were either impractical or nonexistent." That solution may ultimately be required to assure similar levels of broadband availability. There are other solutions, however.

91. It is instructive to compare the deregulatory approach to broadband deployment that has been adopted in the US to the manner in which other developed countries have sought to achieve universal broadband access. US broadband prices are generally higher, and speeds are generally lower, than in many other countries where a more affirmative level of government involvement has been implemented. In Australia, the national government in 2009 established NBN Co. "to implement the Australian Government's policy initiative of providing a National Broadband

Network. NBN Co is a Government Business Enterprise (GBE) [whose] goals are simple – to deliver Australia's first national wholesale-only, open access broadband network to all Australians, regardless of where they live."[126]

> To achieve these objectives the NBN should be built in a cost-effective way using the technology best matched to each area of Australia. This Statement of Expectations provides NBN Co with flexibility and discretion in operational, technology and network design decisions, within the constraints of a public equity capital limit of [AU] $29.5 billion specified in its funding agreement with the Commonwealth, and the Government's broadband policy objectives (as summarized below).
>
> The Government intends the NBN to be a wholesale-only access network, available on equivalent terms to all access seekers, that operates at the lowest practical levels in the network stack. The Government expects completion of the NBN will result in the structural separation of Telstra and a competitive market for retail broadband and telephony services.[127]

The approach adopted by the Australian government captures the efficiencies of a single network while permitting competition at the retail level. The NBN extends services to rural areas and areas with low-population densities that would not be profitable for private sector investment. Similar wholesale/retail structures have been adopted in several other countries, including Sweden, the UK, and New Zealand, although not all have adopted government-owned national wholesale networks. Several other countries adopted regulations requiring the dominant telecommunications provider to offer unbundled broadband access, but not through a structurally separated wholesale entity. With the exception of DSL, US ILECs and cable MSOs are under no

126. NBN Co Stakeholder Charter, September 26, 2013, http://www.nbnco.com.au/corporate-information/about-nbn-co.html (accessed 9/10/15)

127. Statement of Expectation, NBN Co., May 2, 2014, *Id.*

obligation to offer broadband access either on an unbundled or a wholesale basis and, as discussed above, do not do so.

92. As discussed above, Section 706(a) of the 1996 federal *Telecommunications Act* directs states to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans ... by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment." If the economic realities are actually as described by Mr. Golub, the prospects for a competitive high-speed broadband market throughout all parts of California would appear to be highly doubtful. In which event, it would be an error for the Commission to rely upon a regulatory model (the URF) that *assumes* that competition is sufficient to obviate the need for regulation, or that relies upon "competition" without affirmative regulatory involvement to achieve the requirements of §854(b)(2) for the current Verizon/Frontier transaction. As noted earlier, only 27.4% of all California households are currently being passed by two or more broadband providers offing data rates that meet or exceed the FCC's 25/3 threshold. The remaining 73% of California households either cannot get 25/3 broadband access at all, or find that it is being offered only by a single monopoly provider absent any regulatory protection with respect to excessive prices or other onerous terms and conditions.

93. If the current transfer of Verizon California is to produce any measurable ratepayer benefits as is *required* pursuant to §854(b)(1), the CPUC will need to work with Frontier to establish reasonable and realistic investment goals and deployment strategies that will achieve ORA's 98% objective in the most efficient manner. Absent a condition requiring Frontier to commit in good faith to such an undertaking, there is no basis for a finding that the proposed transaction will produce short-run and long-run economic benefits to ratepayers or, even if such benefits are identified, that ratepayers will receive not less than 50% thereof. In the absence of this and the other conditions for approval as recommended by ORA, there would be no basis for the Commission to find that the transaction is in the public interest.

Conclusion

94. The additional information put forward by the Joint Applicants in response to the *Amended Scoping Ruling* raises serious concerns as to whether Frontier's proposed acquisition of Verizon California, as structured, will satisfy the statutory requirements set out at PU Code §854(b) and (c) and be in the public interest. Frontier provides new information that the incremental financing costs arising from the above-book-value purchase price will exceed the cost savings resulting from the elimination of the Verizon overhead allocations. But even if there are positive economic benefits of the transaction, the Joint Applicants have not demonstrated that the level of competition currently prevailing within their combined geographic footprint is sufficient to assure that such benefits will flow through to ratepayers and to state and local economies. Rather than offer any affirmative analysis of current competitive conditions, the Joint Applicants instead rely upon *findings* by the Commission in its now decade-old URF

proceeding as to the existence of competition *for voice services*, a proceeding that did not even examine competitive conditions in the broadband market nor reach any conclusions as to the ability of whatever level of competition may have existed at that time to assure that the required ratepayer benefits actually flow to ratepayers.

95. The *Amended Scoping Ruling* at Question 15, as well as PU Code §854(c)(8), address possible conditions or "mitigation measures" intended to prevent negative or adverse consequences of the transaction. ORA has proposed a number of such conditions designed to address concerns that will not fix themselves in the absence of affirmative measures. Without such conditions, there can be no assurance that the transaction will provide economic benefits, that it will assure that not less than 50% of those benefits are allocated to ratepayers, that it will maintain or improve the financial condition of Frontier following the transaction, that it will bring about broadband availability consistent with established State goals, and that it will assure that identified service quality and network deficiencies are adequately addressed and resolved. Frontier has the potential to do a better job than Verizon in providing quality wireline voice, data and broadband telecommunications services to residents and businesses within the Joint Applicants' combined California operating areas, but there can be no assurance, in the absence of affirmative conditions imposed on the transaction, that this outcome will be achieved.

96. This concludes my supplemental testimony at this time.

VERIFICATION

I declare under penalty of perjury that the foregoing statements are true and correct to the best of my knowledge, information and belief, and if called to testify thereon I am prepared to do so.

LEE L. SELWYN

Executed at Boston, Massachusetts
this 11th day of September, 2015.

Attachment 1

Market Pricing Survey of
Retail Communications Services in California

California PUC Communications Division
December 2, 2014

ECONOMICS AND TECHNOLOGY, INC.

California Public Utilities Commission

Communications Division

Staff Report

Market Pricing Survey of Retail Communications Services in California

Sample of Residential Communications Services and Price Changes 2010 – 2014 Compared to Wireline Basic Voice Service

December 2, 2014

CALIFORNIA PUBLIC UTILITIES COMMISSION STAFF REPORT

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MARKET PRICING SURVEY OF RETAIL COMMUNICATIONS SERVICES IN CALIFORNIA

SAMPLE OF RESIDENTIAL COMMUNICATIONS SERVICES AND PRICE CHANGES 2010-2014 COMPARED TO WIRELINE BASIC VOICE SERVICE

Table of Contents

Summary

This survey includes a simplified assessment of lowest priced market rates available for service offerings available to consumers in California. The report also includes a comparison of the largest four California wireline voice service provider rates inclusive of their associated fixed federal subscriber line charges. Examination of traditional wireline voice services relative to other services in the market is appropriate given the options consumers have for communications services. Assessment of voice telephone services actually purchased by consumers was the subject of a prior Telephone Service Affordability Report to the Legislature.[1] Analysis of the market is contained in the Market Share Analysis of Retail Communications in California report.[2]

Our three significant findings in this pricing survey report are;

- AT&T's real rate for wireline voice service inclusive of federal fixed charges is comparable to Verizon's.
- The price of traditional wireline voice service is comparable to other voice services available in the market.
- Though market prices for sampled services vary, there is no discernable trend up or down for the market.

Our limited assessment indicates that though prices for traditional basic wireline service have increased, they are within the range of sampled market prices. Our assessment of prices in this marketplace is not exhaustive as it is based on a limited sample of lowest priced available services for communications services. Excluding traditional wireline basic service, there is no discernable price trend for lowest-price available services sampled since December 2010. In particular, the VoIP services show declining prices. However, the market share of VoIP service is small relative to other market technologies, such as wireless and traditional wireline.[3]

We find with our limited sample that the lowest available prices of various communications services vary over time and that there in no particular pattern of rate change. We find that traditional basic service prices in real constant dollars had peaked in previous decades, both under cost of service and incentive regulation, but had trended upward following declines in the "real" inflation adjusted price. Further, the adjusted price of LifeLine today is less than under most periods in which the carriers were subject to rate regulation.

[1] Among other things, the Affordability of Basic Telephone Service Report, published September, 2010, found that the average California household telephone bill adjusted for inflation had not changed significantly from the prior 2004 survey. http://www.cpuc.ca.gov/PUC/Telco/generalInfo/2010AffordabilitySurveys.htm

[2] See: Market Share Analysis of Retail Communications in California, www.cpuc.ca.gov/PUC/Telco/generalInfo/CPUC+Reports+and+Presentations.htm

[3] Id. The Market Share report estimates that in June 2013, VoIP was 10.3 percent of the intermodal voice market. Appendix A, Data Table: California Voice and Broadband Subscriptions By Technology. The report presents an assessment of the relative market shares of communications service providers.

Because market concentration does exist, as evidenced in the recent Market Share Analysis of Retail Communications report, the Commission's pledge to monitor the State's communications market remains appropriate. Assessment of the market requires review of many factors including prices, average bills and affordability, market share and consumer complaints. This report addresses one aspect of such an assessment.

I. Retail Pricing Survey

Price analyses are inherently flawed as such analysis requires evaluating varied products, services and pricing plans. In particular, any survey must first determine what is being surveyed; prices paid by existing subscribers versus prices available to potential subscribers. The Commission periodically surveys expenditures of California subscribers and has reported its findings in the "Telephone Service Affordability Report to the Legislature" cited previously. Thus, this report concerns prices available to potential subscribers. The next issue it to determine what should be considered an available rate and for what services.

In this section we compare the lowest available retail price of communication services of 14 largest service providers in California. Beginning in December 2010, staff initiated a periodic survey of service providers regarding their lowest priced service offerings in order to assess market pricing trends. The survey dates as shown in the charts A through H reflect when staff resources were available to complete the survey of the 14 service providers; the last time completed in April 2014.

The communications market includes services available to customers to meet their communications needs. The survey design includes the following categories of services:

- Wireline– Traditional telephone service via copper cables to a customer's premise using TDM Protocol.
- Fixed Broadband– Internet access service typically via DSL, coaxial cable or fiber optic connections.
- VoIP– Fixed and non-fixed voice telephone service to a customer's premise using interconnected Internet Protocol.
- Mobile Voice only– Typically provisioned via a wireless cellular network.
- Mobile Data only– Internet access typically provisioned via a wireless cellular network.
- Mobile Voice & Data– A bundle including both Mobile Voice and Mobile Data.
- Wireline & Long Distance– A bundle including Local and "Long Distance", a phone service that allows a customer to call anywhere in the US at no additional cost.
- Fixed Voice & Broadband– A bundle including Fixed Broadband with Wireline voice or VoIP

The analysis identified lowest available prices from each service provider for each of the services they offer, not an average of what people pay. Six months was chosen as the minimum duration of a service price. The price commitment may be subject to contract or subject to change as in a published tariff or non-contracted service. Consumers that purchase a service at a promotional price will eventually be subject to a price increase if they continue the service, sans a further discount. However, to survey only "non-introductory prices" would exclude available prices in the market. Many services surveyed did not include a promotional rate, while others did. In any case, sans a contract, all services are subject to price change. Where promotions were less than 6 months, the non-promotion price is reported. Thus, for simplicity, the available monthly market prices for initiating service by type are displayed and footnotes provide details about the service and whether the price was promotional.

Services within the same category might offer varying amounts of usage allowances, features or capabilities. Broadband services might include different allotments of data transfer available per month and Mobile Voice services might include texting or voicemail services.

Both Table 1 and Chart 1, below, show the prices of services offered by each of the 14 service providers we researched.

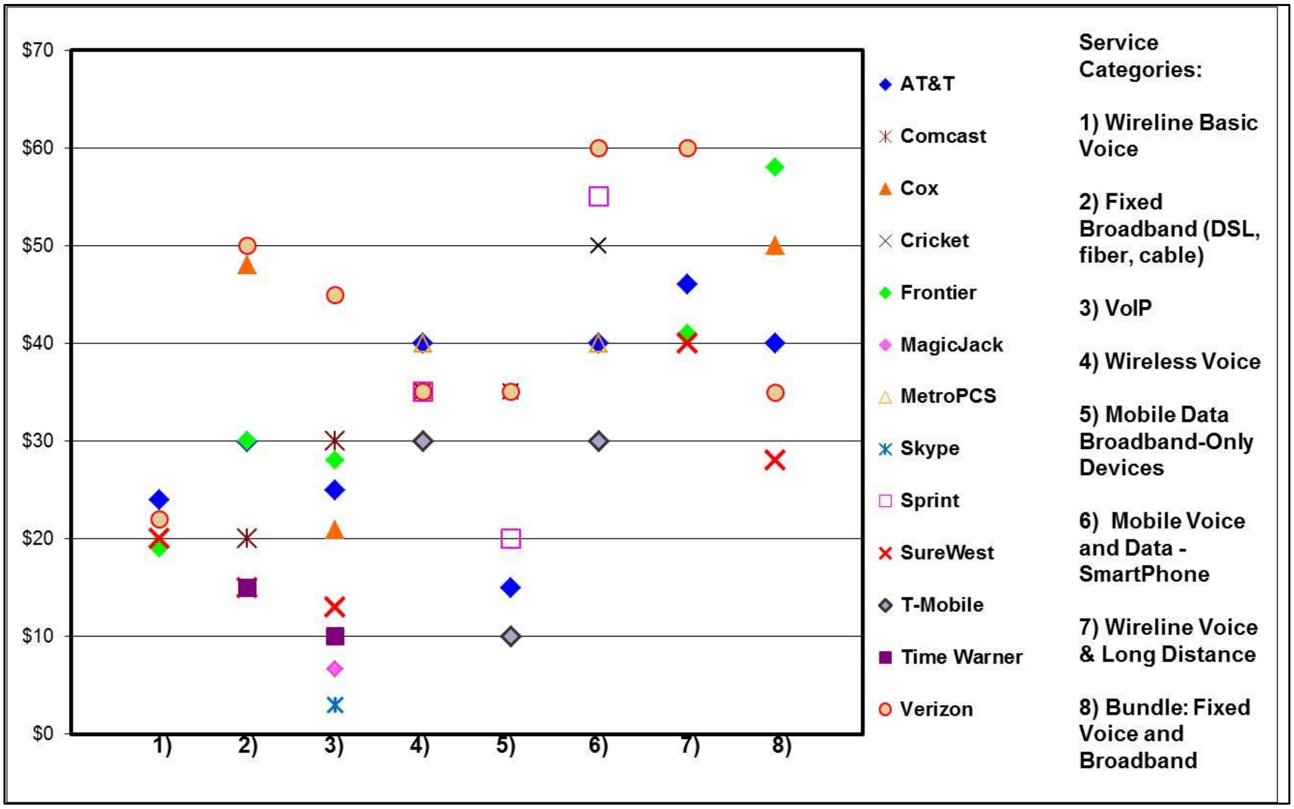
Table 1

Surveyed Prices for Various Communications Market Services in California
Prices as of April 16, 2014
(see endnotes for data sources)

	Basic Local Wireline Voice	Fixed Broadband	VoIP	Mobile Voice	Mobile Data	Mobile Voice & Data	Wireline Local & Unlimited Long Distance	Fixed Voice & Broadband
AT&T	$24.00[i]	$29.95[ii]	$25.00[iii]	$40.00[iv]	$14.99[v]	$40.00[vi]	$46.00[vii]	$34.95[viii]
Comcast	-	$19.99[ix]	$29.99[x]	-	-	-	-	-
Cox	-	$47.99[xi]	$20.91[xii]	-	-	-	-	$49.99[xiii]
Cricket	-	-	-	$35.00[xiv]	$35.00[xv]	$50.00[xvi]	-	-
Frontier	$19.00[xvii]	$29.99[xviii]	$27.99[xix]	-	-	-	$40.99[xx]	$57.98[xxi]
MagicJack[xxii]	-	-	$6.66[xxiii]	-	-	-	-	-
MetroPCS	-	-	-	$40.00[xxiv]	-	$40.00[105]	-	-
Skype	-	-	$2.99[xxv]	-	-	-	-	-
Sprint	-	-	-	$35.00[xxvi]	$19.99[xxvii]	$55.00[xxviii]	-	-
Surewest	$19.99[xxix]	$15.00[xxx]	$12.99[xxxi]	-	-	-	$39.99[xxxii]	$27.99[xxxiii]
Time Warner	-	$14.99[xxxiv]	$10.00[xxxv]	-	-	-	-	-
T-Mobile	-	-	-	$30.00[xxxvi]	$10.00[xxxvii]	$30.00[117]	-	-
Verizon	$22.00[xxxviii]	$49.99[xxxix]	$44.99[xl]	$35.00[xli]	$35.00[xlii]	$60.00[xliii]	$59.99[xliv]	$34.99[xlv]
Vonage	-	-	$12.99[xlvi]	-	-	-	-	-

Chart 1

Surveyed Prices for Various Communications Market Services in California
Prices as of April 16, 2014



April 2014 Price Findings:

- On average, the three categories of "bundled" services (#6, 7 and 8) were the most expensive; however, these bundles can cost less than purchasing the services separately.

- Rates for wireline basic voice services excluding long distance (#1) are closely clustered compared to other service categories (#2 through 8).

- VoIP (#3) and wireless voice is (#4), are generally less expensive than wireline voice bundled with unlimited long distance (#7).

- While prices for wireline voice service (#1) are generally lower than VoIP (#3), wireless voice (#4) and bundled voice packages (#6, 7, and 8), it offers fewer features, especially it excludes long-distance and therefore its price is not directly comparable.

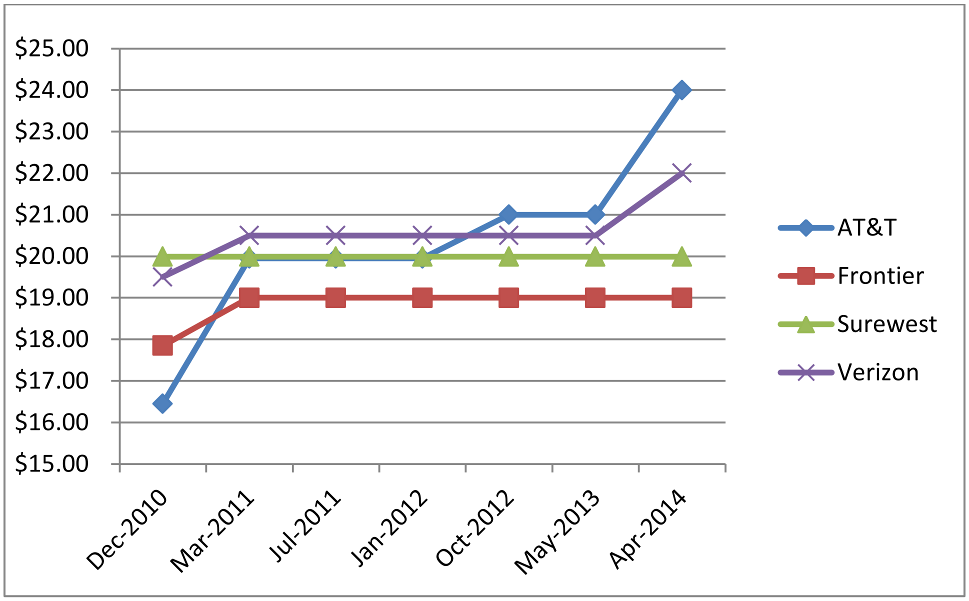
- Nomadic VoIP service providers (Magic Jack, Skype and Vonage) offer low prices for voice services; however these require a separate broadband service connection.

II. Surveyed Pricing Trends

The following charts show retail prices over time from December 2010 to April 2014.

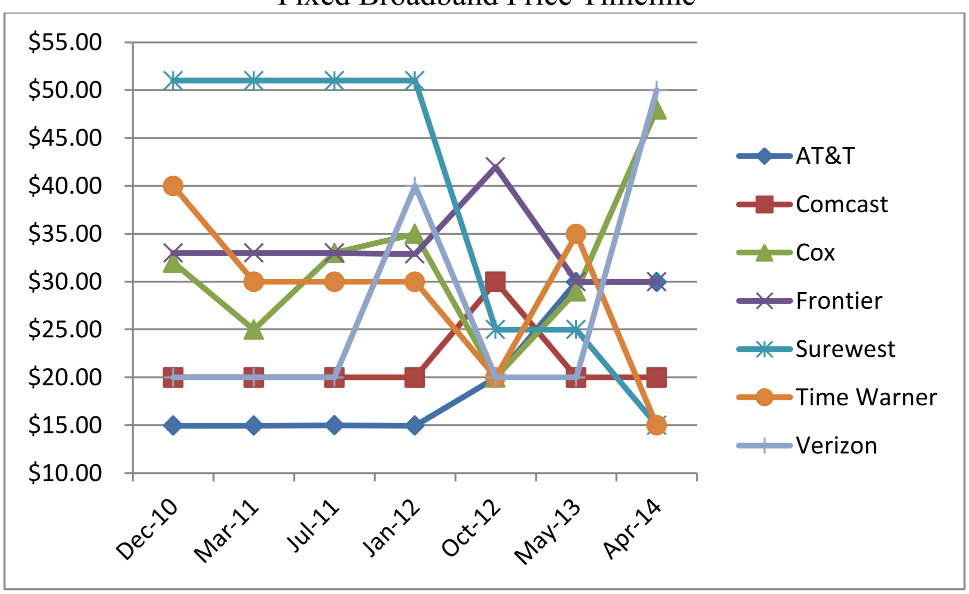
Price Chart A

Wireline Voice Price Timeline

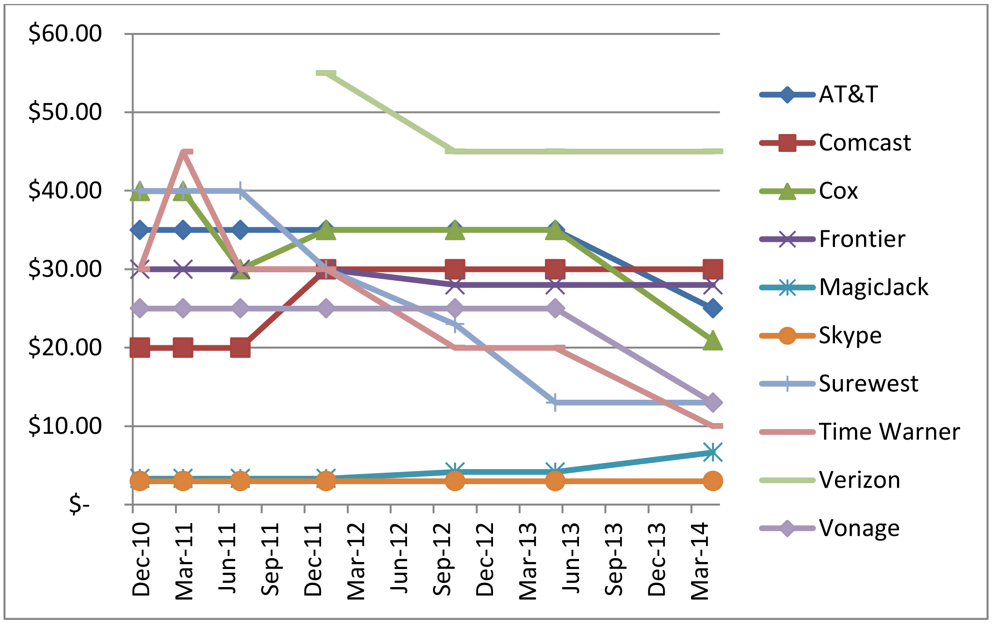


Price Chart B

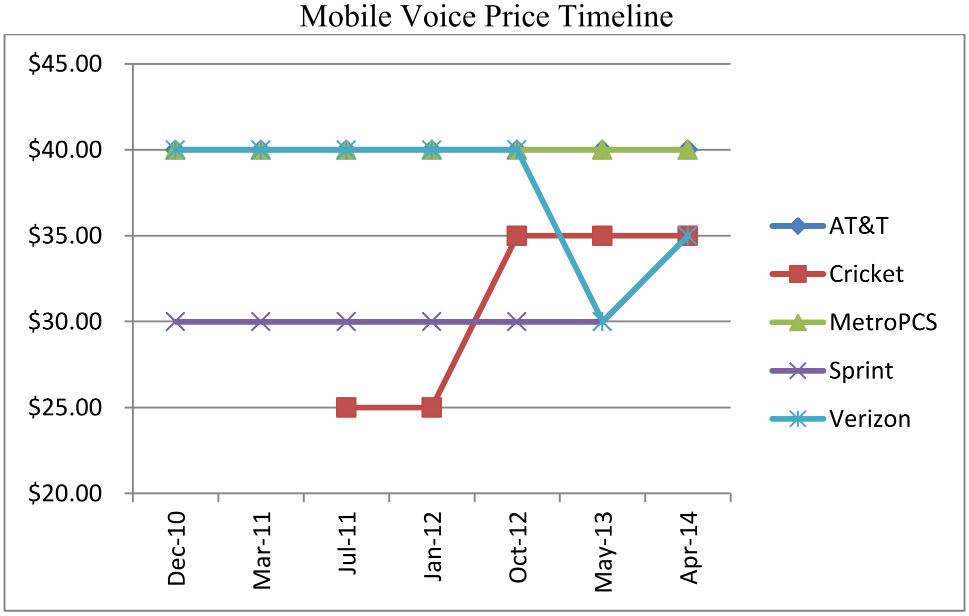
Fixed Broadband Price Timeline



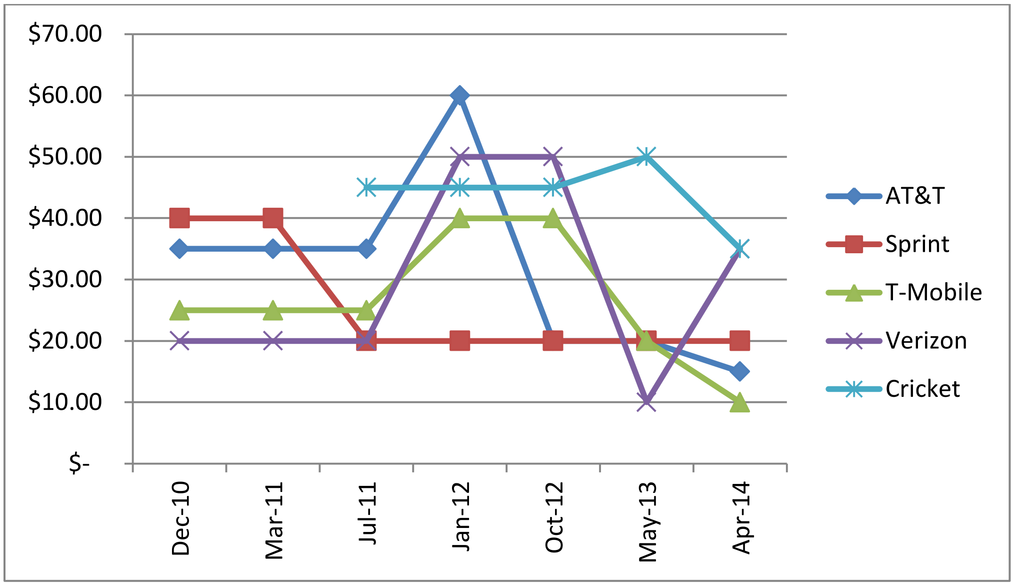
Price Chart C
VoIP Price Timeline



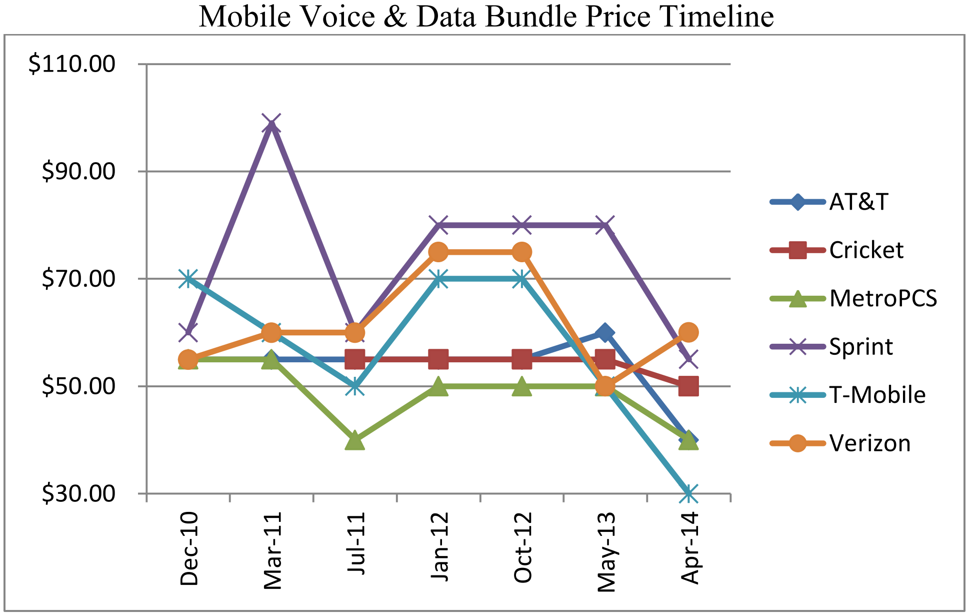
Price Chart D
Mobile Voice Price Timeline



Price Chart E
Mobile Data Price Timeline

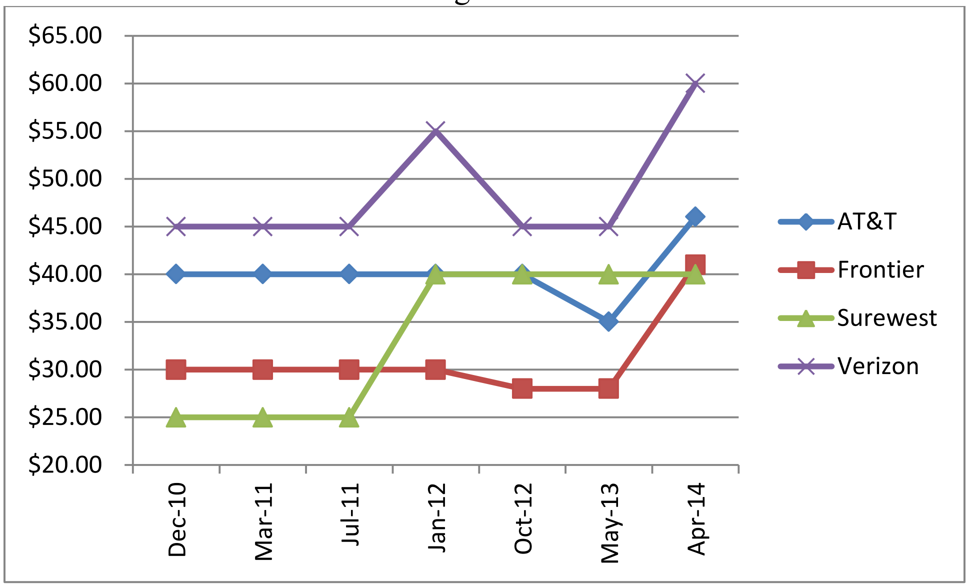


Price Chart F
Mobile Voice & Data Bundle Price Timeline



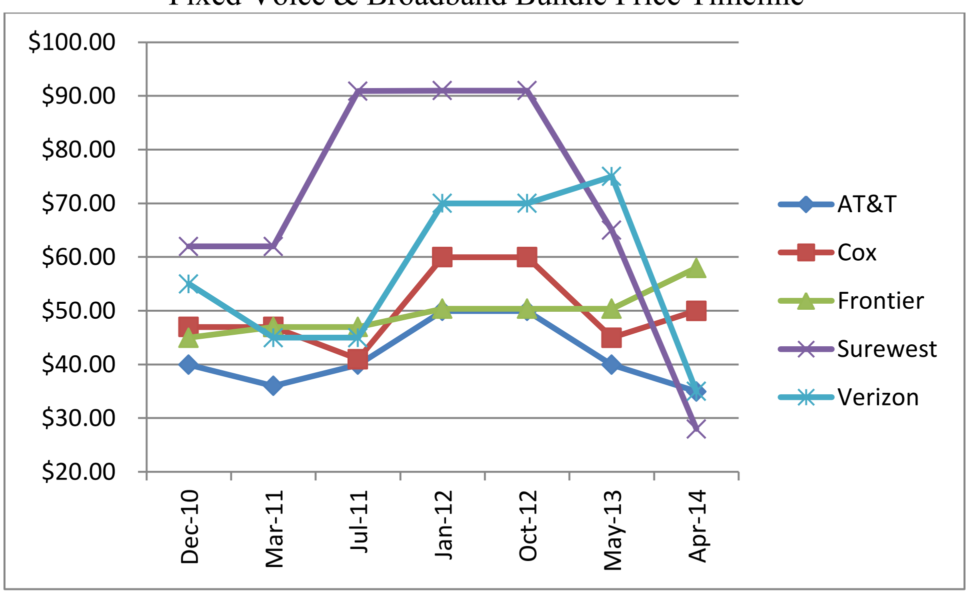
Price Chart G

Wireline Voice Local & Long Distance Bundle Price Timeline



Price Chart H

Fixed Voice & Broadband Bundle Price Timeline



Price Trend Findings:

- Traditional Wireline voice service prices have increased, and appear as the least volatile in rate change.

- VoIP service monthly rates have generally decreased.

- Wireless and broadband services show up and down volatility in pricing. There is no visual discernable trend up or down.

III. Basic Wireline Service Rates and Charges

For most Californian's, the price of traditional wireline service is set at the discretion of the service provider, since basic service regulation price caps were lifted in January 2011 for the four largest service providers in the State.[4]

Chart 2 below shows the basic residential service and LifeLine rates in current dollars for AT&T California (formerly Pacific Bell) and Verizon California (formerly General Telephone) from 1984 to 2014. The chart shows rates that have been adjusted by inflation.[5] This means for example, the inflation adjusted rate shown between 1994 and 2008 declined by the rate of inflation, not a change in the nominal (unadjusted) rate. Since 2011, AT&T's basic rate adjusted values have exceeded previous rate peaks coincident with rates established by the CPUC in its 1984 and 1994 rate setting proceedings. In contrast, the rate for Verizon, which has historically exceeded AT&T's, is less than AT&T's since that time period and is less than the CPUC 1994 rate setting peak.[6] The historical trend of LifeLine telephone rates being set at 50% of the AT&T rate was no-longer applicable in 2011 and LifeLine rates therefore do not escalate following the lifting of price caps. In real, constant dollars, the price of LifeLine today is less than in 1984, 1994 and 2010.

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[4] The rate freeze as ordered in D.07-09-020 expired January 1, 2011. Price setting is still a regulatory activity for some small telephone companies serving primarily rural areas.

[5] All nominal rates have been adjusted for comparability over time to address inflation using the http://www.bls.gov/data/inflation_calculator.htm. All rates in Chart 2 are in 2014 dollars.

[6] The Commission during periods of regulatory rate setting established the Pacific Bell (now AT&T) basic rates lower than other California local exchange carriers. In particular, Pacific Bell's basic service rates were not established solely upon the direct embedded state jurisdiction cost of provisioning the service, rather they were established based on the residual unfunded total company revenue requirement supported by a subsidy to promote universal service. Because of Pacific Bell's large size relative to other California companies, revenues from high value services disproportionately contributed to its "cost" recovery relative to smaller telephone companies. These revenue streams also funded intercompany "Cost Pooling" (a cross-subsidy) of small telephone company costs.

Chart 2

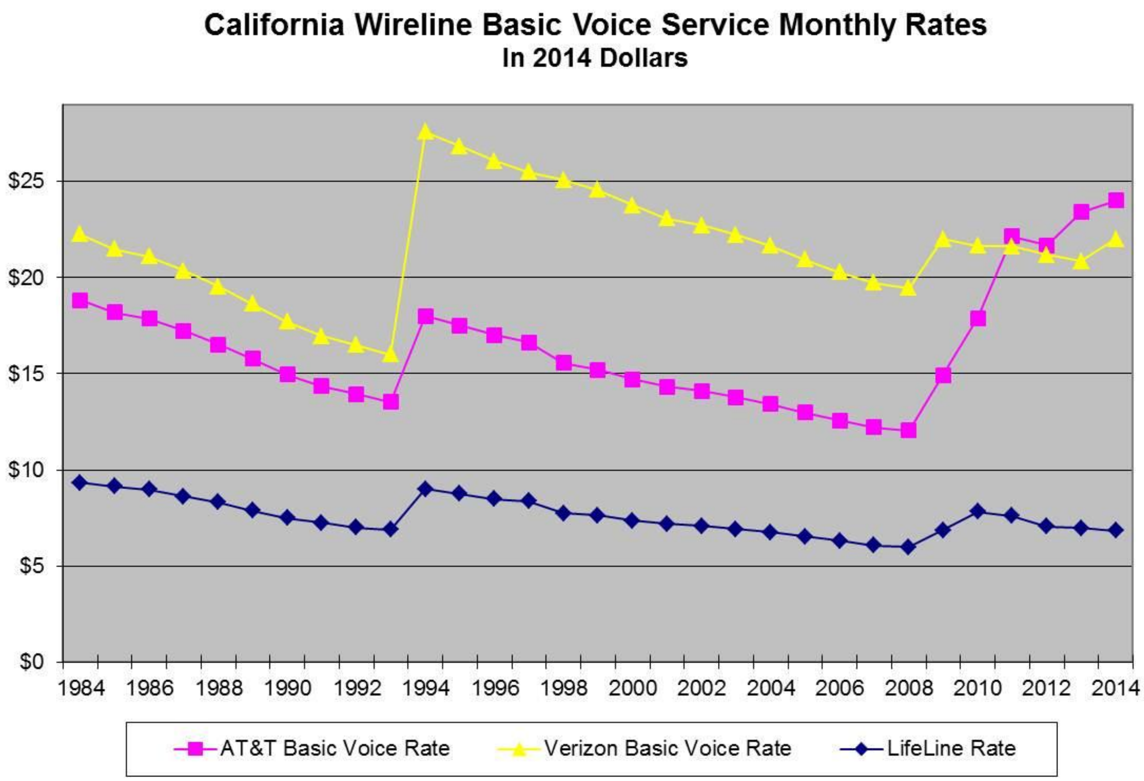

Table 2, below, shows the wireline basic service rates of the four URF carriers in California inclusive of both the state tariffed rate and the federal subscriber line charge. Historically, under cost of service regulation, the costs of provisioning local telephone service were bifurcated between state and federal jurisdiction.[7] The FCC created the subscriber line charge as a means to recover interstate local access costs attributed to federal jurisdiction. These four carriers have discretion whether or not to recover their federal jurisdictional assigned costs. Thus, the total amount recovered by the URF carriers for their basic service is the sum of the state and federal charges. It is appropriate to combine these as they represent the true service provider offered price to the consumer for subscribing to wireline basic service.

When considering the charges their customers' pay, AT&T monthly charges are no longer the highest -- rather, Verizon and AT&T combined charges for flat rate basic service are comparable.

[7] A regulatory issue of the rate setting era was that many utility costs were not attributable to any single service which made it difficult to accurately assign costs among services and state and federal jurisdictions. In order to keep access rates low, high valued state and interstate services, such as long-distance, toll, special access and ancillary service revenues subsidized basic telephone access services. Recreation of "cost" based rates based on today's conditions using prior cost review methodologies might result in higher than current market rates since basic service subscriptions and subsidy contributing toll, access and ancillary revenue streams have declined from historical levels.

Table 2

URF CARRIER BASIC SERVICE MONTHLY RATES AND CHARGES For VOICE GRADE ACCESS LINES As of May 1, 2014					
Company	Flat Rate	Measured Rate	Subscriber Line Charge	Combined State & Subscriber Line Charge	Area
AT&T	$ 24.00	$ 21.25	$ 4.40	$ 28.40	All
Verizon	$ 22.00	$ 13.40	$ 6.50	$ 28.50	Former GTE - Primary Line
			$ 7.00	$ 29.00	Former GTE - Secondary Line
			$ 5.14	$ 27.14	Former Contel - Primary and Secondary Lines
SureWest	$ 19.99	$ 13.99	$ 6.50	$ 26.49	All
Frontier	$ 19.00	$ 13.25	$ 6.50	$ 25.50	Frontier California
			$ 2.24	$ 21.24	Frontier Communications West Coast
			$ 0.61	$ 19.61	Frontier Communications of the Southwest

Basic Service Rate Findings:

- In inflation adjusted dollars, LifeLine basic service rates today are less than most periods under rate regulation.

- In inflation adjusted dollars, AT&T's California basic service rates have exceeded Verizon's in the last four years.

- In inflation adjusted dollars, the single largest rate increase to basic service rates occurred under rate regulation in 1994.

- Consumer fixed monthly rate includes both a state and a federal charge component and these charges should be combined to assess the actual consumer total charge.

- AT&T's and Verizon's combined basic service charges are comparable. Primary line rates range from high of $28.50 (Verizon) to low of $21.24 (Citizen California).

- AT&T has the highest measured rate charges.

IV. Conclusion

The price of basic service should be evaluated relative to the broader market offerings. For example, for most consumers AT&T's basic service can be substituted by purchasing VoIP or mobile voice service at lower or higher prices depending upon available minutes, long-distance, bundling and the service provider chosen by the consumer.

When comparing basic service rates to market prices, it is also appropriate to combine the state rate with the federal subscriber line charge as these are both revenue to the basic service provider and more accurately reflects the price paid by the consumer. When excluding the federal subscriber line charge, wireline basic local voice service rates are generally less expensive than most other communications services. However, when including the subscriber line charge, basic local service rates are about the same as the providers' VoIP service rates, which include long distance. Further, when basic service is combined with unlimited long distance, wireline service is no longer the low price offering. Mobile voice and VoIP services are generally less expensive than wireline voice when including unlimited long distance.

Overall, for all services surveyed, market prices exhibit fluctuations up and down over time, depending on the service provider and service. While Verizon's wireline basic local service prices were higher than AT&T's between 1984 and 2010, AT&T's price increases since 2008 have resulted in AT&T's prices exceeding Verizon's since 2011. However, when considering the subscriber line charge, AT&T's basic service price is no-longer the highest.

While evaluation of basic service prices continues to be important, periodic monitoring of market prices and other market indices is appropriate. Other reports to review in context with this report produced by the Communications Division are the "Market Share Analysis of Retail Communications in California", the "Affordability of Basic Telephone Service Survey" and the "Limited English Proficiency Survey" reports. Together, these four reports provide context to the stability and health of the communications market. These reports can be found at: www.cpuc.ca.gov/PUC/Telco/generalInfo/CPUC+Reports+and+Presentations.htm

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[i] See http://www.att.com/shop/home-phone/landline.html

[ii] 12-month rate; 1-yr contract; 3Mbps per month; See http://www.att.com/shop/internet.html

[iii] Includes 200 minutes per month, then $0.07 for each additional minute; Includes nation-wide calling, first published listing, U-verse messaging, call blocking, call forwarding, call waiting, caller ID, call waiting ID, and other features; See http://www.att.com/shop/home-phone.html

[iv] Unlimited talk and text; 300 MB data per month; See http://www.att.com/att/planner/

[v] Tablet only; 250 MB per month; Laptop is $50 per month for 5 GB; See http://www.att.com/att/planner

[vi] Unlimited talk and text; 300 MB per month; See http://www.att.com/att/planner/

[vii] All Distance Package; Includes caller ID, call waiting, call waiting ID, three way calling, call return, call forwarding, priority ringing and other features; See http://www.att.com/

[viii] New customers only; Modem required; 250 GB per month; 1-yr contract; 200 voice minutes; See http://www.att.com/u-verse/shop

[ix] Economy Plus Internet; 6-month introductory rate; Download speeds up to 3Mbps; New customers only; See http://www.comcast.com/cen_internet
[x] New customers only; Unlimited local calling and nationwide long distance; Includes voicemail, text messaging, call waiting, caller ID, and other features; See http://www.comcast.com/home-phone-service.html
[xi] Download speeds up to 5Mbps; 1GB cloud storage; $34.99 for first three months; Includes 10 email accounts; See https://store.cox.com/residential-store/shop.cox?hsi=w
[xii] Digital Telephone Starter Plan; Includes phone and modem; Unlimited local calling; Includes 900 Blocking, Call Caller ID Blocking, and other features; See https://store.cox.com/residential-store/shop.cox?hsi=w
[xiii] Internet Essential and Phone Essential Plan; Speeds up to 5 Mbps; 1 GB online backup; Includes 10 email accounts, call waiting, call forward busy, 900-blocking, busy line redial, call waiting ID, caller ID, unlimited local calling, and other features; See https://store.cox.com/residential-store/shop.cox?dt=w
[xiv] Basic Plan; Unlimited minutes and long distance; Includes voicemail, caller ID, call waiting, 3-way calling, call forwarding, unlimited messaging, and other features; See http://www.mycricket.com/cell-phone-plans/plan/35_35n
[xv] Light Plan; 2GB at download speeds up to 1.4Mbps; See http://www.mycricket.com/broadband/plans
[xvi] Smart Plan; 2.5GB; Unlimited minutes and long distance; Includes caller ID, call waiting, 3-way calling, call forwarding, unlimited text, and other features; See http://www.mycricket.com/cell-phone-plans#smartphone-plans
[xvii] See http://carrier.frontiercorp.com/crtf/tariffs/u/38/CA/local/Tariff.pdf
[xviii] Simply Broadband Plan; Download speeds up to 6Mbps; 2-year price lock with no contract; Includes wireless router; See http://west.frontier.com/internet
[xix] Unlimited nationwide calling; See http://west.frontier.com/phone
[xx] See http://west.frontier.com/phone
[xxi] Broadband Ultra and Digital Phone Essentials Plan; Download speeds up to 12 Mbps; 2-year price lock but no contract; Wireless router included; See http://west.frontier.com/availability
[xxii] Service from Magic Jack, Skype and Vonage require a separate broadband connection, which is not factored into the price.
[xxiii] First six months free with the purchase of required equipment for $39.95; First time customers only; Unlimited local and long distance to US and Canada; Includes caller ID, voicemail, call forwarding, call waiting, and other features; See http://www.magicjack.com/plans.html
[xxiv] Unlimited minutes, data and text; First 500 MB on 4G LTE speeds, then speeds slowed after 500 MB; Includes voicemail and other features; See http://www.metropcs.com/metro/category/simpleplans/Plans/detail/Our_most_affordable_plan._Only_$40/mo./TTD40-4G
[xxv] Unlimited minutes to US and Canada; See http://www.skype.com/en/rates/
[xxvi] Basic Prepaid Plan; No smartphones; 500 monthly minutes and unlimited Text and Data; See http://www.sprint.com/landings/prepaid/
[xxvii] 1 GB per month; May require up to a $36 activation fee/line; See http://shop.sprint.com/mysprint/shop/plan/plan_wall.jsp?tabId=pt_data_plans_tab&INTNAV=ATG:HE:DataOnlyPlans
[xxviii] Includes 1 GB per month; Unlimited minutes and text; See https://now.sprint.com/framily/
[xxix] Basic Local Service Plan; Unlimited calls in extended local calling area; See http://www.surewest.com/telephone/service
[xxx] $52.99 after 24 months; Download speeds up to 5 Mbps; Includes 6 email accounts, 1 dynamic IP address, 5 GB personal web space, and other features; See http://www.surewest.com/internet/highspeed.php
[xxxi] Digital 300 Plan; 300 anytime minutes; $0.39 per minute on calls over 300 minutes; Includes long distance calling; Incoming calls are free; See http://www.surewest.com/DigitalPhone/
[xxxii] National Unlimited Select Plan; Includes voicemail and other features; See http://www.surewest.com/telephone/service/
[xxxiii] Digital 300 Plan; 300 anytime minutes; $0.39 per minute on calls over 300 minutes; Includes long distance calling; Incoming calls are free; See http://www.surewest.com/DigitalPhone/

[xxxiv] Everyday Low Price Plan; Download speeds up to 2 Mbps; Includes 5 email accounts, 100 MB of space; See http://www.timewarnercable.com/en/internet/internet-service-plans.html
[xxxv] Home Phone National Plan; Includes unlimited long distance; Price is for 12 months; Includes caller ID, call waiting, and other features; See http://www.timewarnercable.com/en/phone/domestic-international-calling-plans.html
[xxxvi] Unlimited web and text with 100 minutes of talk per month; First 5 GB at up to 4G speeds; Unlimited international texting from US; This plan is only available for devices purchased from Wal-Mart or devices activated on T-mobile.com
[xxxvii] Simple Choice Mobile Internet Plan; 1 GB per month at high speeds, then unlimited data at slowed speeds; Unlimited international web and text when roaming; Unlimited Web access via Wi-Fi at T-mobile HotSpots; See http://www.t-mobile.com/cell-phone-plans/mobile-internet.html
[xxxviii] See http://www.verizon.com/tariffs/PDFViewer.aspx?doc=171804
[xxxix] Download speeds up to 15Mbps; Price valid for 12 months, then $69.99 for months 13-24; Two year agreement required; Includes Verizon WiFi; Verizon also offers DSL for $19.99 per month as part of a bundled package with home phone service; See http://www.verizon.com/home/fios-fastest-internet/
[xl] FiOS Digital Voice Unlimited Plan; Includes domestic long distance, Canada and Puerto Rico; Include voicemail, caller ID, call waiting, online account manager, and other features; See http://www.verizon.com/home/phone/fiosdigitalvoice/#plans
[xli] Includes 700 minutes; Not available for purchase online.
[xlii] Connected Device Plan; Includes 4 GB per month; See http://www.verizonwireless.com/wcms/consumer/devices/delphi-connect.html
[xliii] Includes 1 GB per month; Unlimited talk and text; See http://www.verizonwireless.com/
[xliv] Freedom Essentials Plan; See http://www.verizon.com/home/MLP/OnlineHSIDP.html?x1=ksjd9874
[xlv] Double Play Plan; Price for two years with contract; Download speeds up to 1Mbps; See http://www.verizon.com/home/highspeedinternet/
[xlvi] 400 minutes to US and Canada, with additional minutes $0.05 each; Free activation with one year agreement; Includes caller ID, call waiting, anonymous call block, 3-way calling, call forwarding and more; See http://www.vonage.com/