

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Joint Application of
Sprint Communications Company L.P.
(U-5112) and T-Mobile USA, Inc., a
Delaware Corporation, For Approval of
Transfer of Control of Sprint Communications
Company L.P. Pursuant to California Public
Utilities Code Section 854(a).

Application 18-07-011

And Related Matter.

A.18-07-012

OPENING BRIEF OF THE PUBLIC ADVOCATES OFFICE

[PUBLIC]

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TABLE OF CONTENTS

	<u>Pages</u>
TABLE OF AUTHORITIES	iii
I. INTRODUCTION	1
II. JURISDICTION; BURDEN OF PROOF	3
A. Concerns Over Regulatory Forbearance	4
III. PROCEDURAL HISTORY	5
IV. THE WIRELESS MARKET IN CALIFORNIA IS ALREADY HIGHLY CONCENTRATED, AND FURTHER MARKET CONSOLIDATION IS NOT IN THE PUBLIC INTEREST	8
A. The Proposed Merger Would Hurt Competition, Causing Risks of: Higher Prices, Stifling Innovation, Decaying Service Quality and Privacy, and Eliminating Low-Income Programs	12
1. In a Highly Concentrated Market, Prices Are Higher	13
a) Parallel Pricing	14
b) The Joint Applicants’ Financial Model Finds That Actual Prices Will Be Higher Post-Merger	15
2. Risks To Innovation	17
3. The Merger Would Negatively Impact Service Quality	20
a) Coverage Will Not Increase as a Result of the Proposed Merger	21
b) Speeds Will Increase as a Result of a 5G Network, Not the Proposed Merger	22
c) Other Factors that Impact Service Quality	23
4. The Proposed Merger Would Decrease Competition in the Prepaid Market	24
5. The Proposed Merger Presents Risks to the LifeLine Program	26
6. Risks to the Wholesale Market	28
7. The Merger Could Erode Protection on Customer Data	29
8. Privacy for Children	31
9. Mandatory Arbitration Clauses	33

B.	The Alleged Benefits Of The Merger Are Exaggerated and Do Not Outweigh The Risks.....	34
1.	The Proposed Merger Will Not Increase Capital Investments in California	35
2.	A 5G Network Is Not a Merger-Specific Benefit.....	37
a)	A 5G Network Must Meet Certain Specifications.....	39
b)	Additional Spectrum Is Not Necessary To Meet Demand For 5G, Which Does Not Exist Yet	40
3.	Existing Spectrum is sufficient to deploy 5G networks.....	41
4.	Rural Deployment Will Depend on Capital Investment, Not New Spectrum.....	45
a)	In Home Broadband Is Not Merger Specific	46
C.	Sprint Does Not Need To Merge With T-Mobile To Remain Financially Viable	47
1.	Sprint’s Public Statements Indicate that Its Current Financial Condition is Good.....	48
2.	The Public Advocates Office’s Examination of Sprint’s Financial Condition Demonstrates That It Is In Good Condition	51
V.	IF THE PROPOSED MERGER IS APPROVED, THE COMMISSION SHOULD CONSIDER CREATING CONDITIONS TO IMPOSE ON THE MERGER	52
VI.	CONCLUSION	54

TABLE OF AUTHORITIES

Pages

Cases

Carnegie v. Household Int’l. Inc., 376 F. 3d 656, 661 34

CPUC Decisions

D.83-05-036..... 3

D.94-08-022..... 14

D.04-03-039..... 4

D.04-03-034..... 3

D.04-07-022..... 3

D.09-03-025..... 3

Commission Rule of Practice and Procedure

Rule 1.12..... 6

California Public Utilities Code

§ 854*passim*

§ 854(a)..... 3, 6

§ 854(d)..... 2, 4

§ 854(e)..... 2, 3

§ 871.7(a)..... 26

United States Code

47 U.S.C. § 254(b)..... 26

Code of Federal Regulations

16 CFR Section 312, Donnelly at 21 31

Federal Statutes

DISH Network Corporation, Petition to Deny,
WT Docket No. 18-197 at 54, n. 208 25

FCC 20th Wireless Competition Report at n. 54 26

FCC Staff Analysis of AT&T/T-Mobile Merger at ¶ 41, n. 126..... 25

*T-Mobile Notice of Relinquishment of LifeLine-Only Eligible
Telecommunications Carrier Designation,
WC Docket No. 09-197 (Sept. 12, 2014)*..... 27

WTB Docket No. 18-197, filed June 18, 2018 (“Public Interest Statement”)
at page 98..... 3

Other Authorities

Omnibus Budget Act Reconciliation Act of 1993, Pub. L No. 103-66,
Title VI, § 6002(b)(2)(A), 6002(b)(2)(B), 107 Stat. 312, 392 (1993) 5

List of Acronyms

5G – 5th Generation
ARPU – Average Revenue Per Unit
CSA – Customer Service Agreement
COPPA – Children's Online Privacy Protection Act
DOJ – Department of Justice
EBITDA – Earnings Before Interest, Taxes, Depreciation and Amortization
FCC – Federal Communications Commission
GB – Gigabytes
Gbps – Gibabits per second
HHI – Herfindahl-Hirschman Index
HMG – Horizontal Merger Guidelines
IKK – Israel, Katz, and Keating
ITU-R – International Technical Union – Radiocommunication Sector
Mbps – Megabits per second
Mhz – Megahertz
MIMO – Multi-Input Multi-Output
MNO – Mobile Network Operator
MVNA – Mobile Virtual Network Aggregators
MVNO – Mobile Virtual Network Operators
OECD – Organization for Economic Cooperation and Development
POPs – United State Populations
TPRM – Third -Party Risk Management

I. INTRODUCTION

The Public Advocates Office at the California Public Utilities Commission (Public Advocates Office) opposes the merger¹ proposed by Sprint Communications Company L.P., Sprint Spectrum L.P., Virgin Mobile USA, L. P. and T-Mobile USA, Inc (Joint Applicants). The proposed merger would reduce the number of major wireless service providers in California from 4 to 3, resulting in increased market concentration and market power of the new company, called “New T-Mobile”. The reduced competition will result in higher prices and will also likely lead to less innovation, deteriorating service quality, elimination of LifeLine for low-income customers, and reduced customer privacy. The merger will be bad for California and should be denied.

There are 4 large Mobile Network Operators (MNOs) in California, with broad nationwide coverage.² MNOs are facilities-based carriers that utilize their networks to provide wireless service, as well as interconnect with other networks, and provide wholesale services to other carriers that do not have their own networks, known as Mobile Virtual Network Operators (MVNOs). This proposed merger would reduce the number of MNOs to 3, by combining Sprint and T-Mobile into “New T-Mobile,” resulting in a highly concentrated wireless market. When considering geographic and product markets, concentration becomes even more extreme.³ For example, Sprint and T-Mobile already serve a high percentage of the “prepaid wireless” market, and the proposed merger would result in even higher market power in that area.

In considering the proposed merger, the Commission is governed by Public Utilities Code Section 854, which requires the Commission to consider whether the merger is in the public interest. Joint Applicants have the burden of proving by a

¹ Joint Applicants filed two merger Applications, one for their wireline businesses and one for their wireless businesses, A.18-07-011 and A.18-07-012. On September 11, 2018, the Assigned Administrative Law Judge issued a Ruling consolidating both applications and stating “...the underlying transaction that gives rise to each of them is the proposed Sprint-T-Mobile Merger and the underlying factual and legal issues are effectively identical” (September 11, 2019, ALJ Ruling at 1).

² Exhibit Pub Adv-002C, Testimony of Dr. Lee Selwyn (Selwyn) at viii.

³ *Ibid.*

preponderance of the evidence that they have met the requirements of Section 854.⁴ If the proposed merger is not in the public interest, the Commission may recommend “no merger”.⁵ The Amended Assigned Commissioner’s Scoping Memo And Ruling (Scoping Ruling) lists 15 areas of concern to assess whether the proposed merger is in the public interest. The testimony prepared by the Public Advocates Office addresses most of those areas.⁶

The Public Advocates Office’s testimony unequivocally finds that the proposed merger is not in the public interest, and should be denied.⁷ The extensive and detailed testimony, prepared after several months of discovery and hundreds of data requests, demonstrates that there are substantial risks to California if this proposed merger is approved. The testimony addresses lack of competition; deteriorating service quality; reduced innovation; elimination of LifeLine; and the risk to customer privacy in California.

Joint Applicants have engaged in a widespread effort to tout the benefits of the proposed merger. However, the testimony by the Public Advocates Office demonstrates that the alleged benefits are not specific, measurable, verifiable, and enforceable.⁸ Indeed, the alleged benefits would occur even if there were no merger. For example, although Joint Applicants have stated that the proposed merger is necessary for new 5G service, both standalone companies have announced that they will roll out excellent 5G wireless service whether or not the merger occurs.⁹ Also,

⁴ Section 854(e).

⁵ Section 854(d).

⁶ Exhibit Pub Adv-001, the Public Advocates Office Executive Summary (Executive Summary) at 5-6, showing which areas are addressed by each Public Advocates Office witness.

⁷ Executive Summary at 1.

⁸ *Ibid.*

⁹ The independent entities have already announced extensive and detailed plans to offer Fifth Generation (5G) wireless service. Selwyn at 142-166. See also, Pub Adv-005C, Testimony of Cameron Reed on 5G (Reed) at 8-19.

capital investment, including investment in rural areas, will not increase with the merger.¹⁰

Another benefit alleged by Joint Applicants is that the proposed merger will allow Sprint to continue to be a viable competitor in the future. However, contrary to the Joint Applicants' representations¹¹, Sprint's financial health without the proposed merger is improving and is reasonably comparable to that of T-Mobile, AT&T, and Verizon. Without the proposed merger, both Sprint and T-Mobile will continue to be healthy competitors for the foreseeable future.

II. JURISDICTION; BURDEN OF PROOF

Applications 18-07-011 and 18-07-012 were submitted pursuant to Public Utilities Code Section 854(a), which requires prior authorization from the Commission before the finalization of any transaction that results in the merger, acquisition, or a direct or indirect change in control of a public utility. Section 854 (a) requires the Commission to determine that an acquisition/merger is in the public interest.

Joint Applicants have the burden of proving by a preponderance of the evidence that the requirements of Section 854 are met.¹² An applicant must provide its affirmative showing in its application, with "percipient witnesses in support of all elements of its application."¹³ An applicant does not meet its burden if it submits an incomplete application, or attempts to meet its burden in its rebuttal testimony.¹⁴ The Commission has stated: "Providing the basic justification in rebuttal is unfair, since parties are not generally given the opportunity to respond to rebuttal with testimony of their own... When the utility has the evidentiary burden, we caution against the use of rebuttal testimony to

¹⁰ Testimony of Adam Clark (Clark) at 29-32.

¹¹ A.18-07-012 at page 28. See also, the Description of Transaction, Public Interest Statement, and Related Demonstrations, WTB Docket No. 18-197, filed June 18, 2018 ("Public Interest Statement") at page 98.

¹² Section 854(e).

¹³ *Re Southern California Edison Company*, 11 CPUC 2d, 474, 475 (D.83-05-036).

¹⁴ *Re San Diego Gas and Electric Company*, 46 CPUC 2d 538, 764, n. 17. (D.04-07-022); See also, D.09-03-025, p. 8 (SCE 2009 GRC); D.04-03-034 (Southwest Gas Corporation GRC) at 7-8.

provide the basic justification. As a matter of fairness, we must seriously consider either striking such testimony or extending the proceeding, at the utility's risk, to allow for responsive testimony from the other parties.”¹⁵

Joint Applicants' wireless Application did not include their case-in-chief evidence and arguments. Instead, Joint Applicants included a vast amount of information, including thousands of pages from their FCC filings, in their rebuttal testimony. While some of the information may have been provided in discovery a few weeks prior to the Public Advocates Office's testimony, the narrative descriptions, explanations of benefits, arguments about the new 5G network, and other alleged benefits, were not provided prior to rebuttal testimony. For these reasons, Joint Applicants have not met their burden of proof and the Application should be denied.

If the Commission determines that the harms of the proposed merger outweigh the alleged benefits (i.e., the merger is not in the public interest), the Commission may consider other “reasonable options,” including “no merger” and “whether comparable short-term and long-term economic savings can be achieved through other means while avoiding the possible adverse consequences of the proposal.”¹⁶ The Commission must determine whether this proposed merger is in the public interest, and if it is not it may deny the merger.

A. Concerns Over Regulatory Forbearance

The Scoping Ruling poses the question whether the merger would preserve the jurisdiction of the Commission to effectively regulate the New T-Mobile.¹⁷ Commission jurisdiction does not include jurisdiction over rate regulations, because federal law

¹⁵ *In the Matter of the Application of Southern California Water Company*, (D.04-03-039), at 84-85; footnote omitted, 2004 Cal PUC Lexis 95 *125-26.)

¹⁶ Section 854(d).

¹⁷ Scoping Ruling at 3.

preempts states from regulating entry or wireless rates, but it leaves all other terms and conditions of service to the states.¹⁸

However, the FCC has formally determined that it would forbear from regulating wireless rates, finding that competition had developed to the point where rate regulation was not necessary.¹⁹ The premise behind the FCC's regulatory forbearance is that competition obviates the need for active regulation.²⁰ After the proposed merger, only 3 competitors will remain which is not enough to ensure a competitive outcome.²¹ Yet, the FCC relies on the existing competition between the 4 carriers to keep rates reasonable.

Here, the Commission cannot regulate wireless rates due to federal preemption, and the FCC has regularly exercised forbearance. But with such high market concentration and the substantial financial and technical barriers to entry for a new MNO entering the market, lack of competition means that prices will rise and quality and innovation will suffer. Therefore, the Commission should be skeptical of whether continued regulatory forbearance by the FCC will protect consumers in California. Continued forbearance is not in the public interest, and in the absence of rate regulation the Commission should use its statutory authority to deny the merger.

III. PROCEDURAL HISTORY

This is not the first time that this merger has been contemplated. In 2014, the Joint Applicants considered a merger but due to anticipated opposition, it did not go forward.²² In 2014, the same 4 major MNOs dominated the market, except that now there is a different federal administration and a different set of FCC Commissioners. Essentially the same merger proposal that was not pursued in 2014 is being re-proposed now, and the

¹⁸ *Omnibus Budget Reconciliation Act of 1993*, Pub. L. No. 103-66, Title VI, § 6002(b)(2)(A), 6002(b)(2)(B), 107 Stat. 312, 392 (1993).

¹⁹ *Ibid.*

²⁰ *Ibid.*

²¹ *Ibid.*

²² Transcripts at 251:4-17.

Joint Applicants’ are seizing the opportunity presented by the current administration and its FCC commissioners.

On July 13, 2018, Joint Applicants filed this “*Joint Application For Review Of Wireless Transfer Notification Per Commission Decision 95-10-032.*”²³ The original wireless application consists of only 36 pages of written text and approximately 50 pages of attachments, and is sometimes referred to by Joint Applicants as a “Notification”. On September 11, 2018, the ALJ consolidated the two merger applications into one proceeding.

On October 4, 2018, the Assigned Commissioner issued the Amended Scoping Ruling (Scoping Ruling) that listed the factors that the Commission will consider in making a public interest determination regarding the effects of the proposed merger on the residents of California, and other issues that this proceeding will focus on. The 15 factors listed are the subject of the Public Advocates Office’s testimony served on January 7, 2019.

Although the 15 factors described how the Commission would evaluate whether the proposed merger is in the public interest, Joint Applicants’ wireless application did not adequately address those issues. Instead of seeking permission to amend its application to address the issues listed in the Amended Scoping Ruling, or to withdraw its application and re-file²⁴, Joint Applicants did nothing.

On January 7, 2019, the Public Advocates Office presented its opening testimony, addressing the issues listed in the Amended Scoping Ruling. On January 29th, Joint Applicants submitted their rebuttal testimony, supplementing their application by

²³ On July 13, 2018, Joint Applicants also filed an application for transfer of control of Sprint’s wireline business, “*Joint Application For Approval Of Transfer Of Control Of Sprint Communications Company L.P. (U-5112-C) Pursuant To Public Utilities Code Section 854(a)*”, but the Public Advocates Office’s protest and testimony focuses on the wireless application.

²⁴ Arguably, Commission Rule of Practice and Procedure Rule 1.12 prohibits an applicant from amending its application after the Scoping Ruling has been issued. If this is the case, then Joint Applicants’ rebuttal testimony constitutes an improper amendment to its application, and should be stricken. Since the Commission’s Rules were designed to ensure fundamental fairness and due process, the Public Advocates Office did not ask for that remedy. Instead, the Public Advocates Office requested permission
(continued on next page)

presenting new arguments and new information, some of which was not in response to the Public Advocates Office’s testimony. In addition to almost 1,000 pages of written testimony and exhibits, the rebuttal testimony incorporates approximately 3,000 pages of materials from Joint Applicants’ submission to the FCC in connection with the corresponding authorization request filed there. Joint Applicants’ 4,000 pages of “rebuttal” testimony is their case in chief and their application is insufficient without it.

On February 4, 2019, the Public Advocates Office filed a Motion To Amend And Supplement Testimony And For Additional Hearings, requesting additional time to provide sur-rebuttal testimony that responds to the voluminous information provided in Joint Applicants’ rebuttal testimony. In their response, Joint Applicants state: “to the extent that Cal PA and other parties wish to comment on any of the testimony introduced in these proceedings to date, including the Joint Applicants’ rebuttal testimony, they will be free to do so in their opening and reply briefs.”²⁵

On February 26, 2019, ALJ Bemserderfer issued a ruling “*Denying In Part And Granting In Part The Motion Of The Public Advocates Office To Amend And Supplement Testimony And For Additional Hearings; And Revising The Schedule Of This Proceeding.*” (ALJ Ruling) The ALJ did not schedule additional hearings; however, the ALJ granted the Public Advocates Office’s request to amend and supplement its testimony with “additional evidence and arguments,” on the condition that it must be included in the Opening Brief.²⁶ After the close of hearings the Public Advocates Office continued to propound discovery aimed to supplement and clarify Joint Applicants’ rebuttal testimony in order to provide additional evidence and arguments.

Joint Applicants refused to provide substantive responses to the Public Advocates Office’s data requests after the hearings, despite the ALJ’s Ruling. The Public Advocates

(continued from previous page)
to supplemental its testimony, as described below.

²⁵ Joint Applicants Response to Motion at 2.

²⁶ ALJ Ruling dated February 26, 2019.

Office therefore filed a Motion to Compel Responses to Data Requests on March 7, 2019. The Public Advocates Office's Motion to Compel demonstrated that its due process and right to discovery was violated by the denial of discovery and the delay it caused. On March 25, 2019, the ALJ issued a ruling granting the Public Advocates Office's Motion to Compel and extending the deadline for Opening Briefs to April 26, 2019.

Pursuant to the February 26, 2019, ALJ Ruling partially granting the Public Advocates Office's request to provide additional evidence and arguments, attached to this Opening Brief are declarations from the Public Advocates Office staff with its responses to the Joint Applicant's rebuttal testimony. The Public Advocates Office conducted additional discovery and incorporated the responses and additional analysis into declarations attached to this Opening Brief. The Public Advocates Office provides the following additional testimony in response to Joint Applicants' Rebuttal Testimony:

1. "Supplemental Declaration of Lee S. Selwyn" dated April 26, 2019, regarding the Israel, Katz, Keating economic model (Attachment A);
2. "Supplemental Declaration Of Cameron Reed Of The Public Advocates Office" dated April 26, 2019, regarding New T-Mobile's in-home broadband service and the future fifth-generation wireless service (5G) network (Attachment B);
3. "Supplemental Declaration Of Kristina Donnelly Of The Public Advocates Office" dated April 26, 2019, regarding the impact of the proposed merger on consumer privacy and data security (Attachment C).

IV. THE WIRELESS MARKET IN CALIFORNIA IS ALREADY HIGHLY CONCENTRATED, AND FURTHER MARKET CONSOLIDATION IS NOT IN THE PUBLIC INTEREST

The Public Advocates Office staff and its consultant Dr. Selwyn conducted a thorough review and analysis of materials presented by the Joint Applicants in their Application. The table below includes references to sections and page numbers where staff and Dr. Selwyn addressed the issued listed in the Scoping Ruling. This table

provides a roadmap for finding the Public Advocates Office’s responsive testimony on each issue.²⁷

**Table 1:
References to Public Advocates Office Analysis of Public Interest Factors**

	Public Interest Determination Factor	Staff/Consultant Testimony, Location of Analysis
1	How would the merger impact competition for services currently provided by Sprint or T-Mobile in any metropolitan area or other geographically distinct market?	Testimony of Lee Selwyn at 8-27
2	What new services, if any, that are not currently provided by T-Mobile or Sprint, are contemplated to be provided by the merged entity? How would the merger impact competition for such services in any metropolitan area or other geographically distinct market?	Testimony of Lee Selwyn at 142-156 Testimony of Cameron Reed on 5G at 10-22
3	What are the relevant markets to consider?	Testimony of Lee Selwyn at 27-72 Testimony of Eileen Odell at 9-23
4	Would the merger give the merged company monopsony power or increase the tendency to exercise monopsony power, including market power over equipment suppliers?	N/A
5	What merger-specific and verifiable efficiencies would be realized by the merger?	Testimony of Lee Selwyn at 132-142
6	How would the merger affect innovation?	Testimony of Adam Clark at 31-35
7	How would the merger affect the market for special access services, including backhaul services?	N/A
8	How would the merger affect the ability of independent competitive wireless carriers to obtain backhaul services?	N/A

²⁷ Table 1 was produced in the Executive Summary at pages 5-7.

9	Would the merger increase the market power of the incumbent local exchange carriers and their wireless affiliates?	Testimony of Lee Selwyn at 72-132
10	How would the merger impact the quality of, and access to, service to California consumers in metropolitan areas, rural areas, or other geographically distinct markets? What services would be affected?	Testimony of Lee Selwyn at 156-167 Testimony of Cameron Reed on 5G at 10-22 Testimony of Cameron Reed on Service Quality and Public Safety at 10-39
11	How would the merger impact the LifeLine program?	Testimony of Eileen Odell at 22-27
12	Which California utilities would operate the merged properties in the state?	N/A
13	Would the merger preserve the jurisdiction of the Commission to effectively regulate those utilities and their operations in California?	Testimony of Lee Selwyn at 167-173
14	Would the benefits of the merger likely exceed any detrimental effects?	Testimony of Lee Selwyn at 173-178 Testimony of Eileen Odell at 8-27 Testimony of Cameron Reed on 5G at 10-22 Testimony of Cameron Reed on Service Quality and Public Safety at 10-39

	Public Interest Determination Factor	Staff/Consultant Testimony, Location of Analysis
		Testimony of Adam Clark at 7-36 Testimony of Kristina Donnelly at 6-28
15	Should the Commission impose conditions or mitigation measures to prevent significant adverse consequences and, if so, what should those conditions or measures be?	Testimony of Lee Selwyn at 178-186 Testimony of Eileen Odell at 7, 22, 27 Testimony of Cameron Reed on 5G at 6 Testimony of Cameron Reed on Service Quality and Public Safety 7 Testimony of Adam Clark at 6 Testimony of Kristina Donnelly at 3-4

In addition, as described above the Public Advocates Office’s has attached Declarations to this Opening Brief to rebut the new and extended information contained in Rebuttal Testimony from the Joint Applicants.

The Public Advocates Office’s consultant Dr. Selwyn provides a thorough analysis of the proposed merger. Dr. Selwyn is a highly regarded expert in the field. He has achieved a Ph.D. degree in Management from the Alfred P. Sloan School of Management, Massachusetts Institute of Technology; a Master of Science degree in Industrial Management from MIT; and a Bachelor of Arts degree with Honors in Economics from the City University of New York. Since 1972, he has run Economics and Technology, Inc., providing research and analysis on telecommunications policy. He

has been actively and continuously involved in the fields of telecommunications economics, policy and regulation since the late 1960s, providing expert testimony and analysis on telecommunications economics, technology, rate design, service cost analysis, market structure, form of regulation, and numerous other telecommunications issues before more than forty state public utility commissions, the Federal Communications Commission, and the United States Congress. Dr. Selwyn's testimony addresses issues listed in the Scoping Ruling, focusing on the competitive harms of the proposed merger, discussed below.

A. The Proposed Merger Would Hurt Competition, Causing Risks of: Higher Prices, Stifling Innovation, Decaying Service Quality and Privacy, and Eliminating Low-Income Programs

The proposed merger would reduce the number of national facilities-based MNOs in the United States and in California from 4 to 3, making an already highly-concentrated market even more concentrated.²⁸ The Horizontal Merger Guidelines (HMG)²⁹ use the Herfindahl-Hirschman Index (HHI), a widely-accepted measure of market concentration that has been adopted by the United States Department of Justice and Federal Trade Commission.³⁰ Dr. Selwyn's testimony shows that the nationwide HHI after this proposed merger will increase from its pre-merger level of 2843, already showing a highly concentrated industry, to a post-merger HHI of 3257, an increase of 414 that is well in excess of the HMG's 200-point threshold for highly concentrated markets.³¹ Mergers resulting in highly concentrated markets that involve an increase in the HHI of more than 200 points indicate enhanced market power, and the magnitude of the increase is far greater in the case of the Prepaid Services market.³² Greater market power typically

²⁸ Selwyn at 8.

²⁹ United States Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines* 2010 edition (HMG); see Selwyn at 8.

³⁰ *Ibid.*

³¹ *Ibid.*

³² Selwyn at 16.

results in higher prices for consumers.³³ In general, the well-known rules of competition dictate that a market with only three equal participants is more likely to behave like a cartel than an effectively competitive market, with each firm maintaining profits by keeping their existing market shares instead of aggressively reducing prices and innovating to gain market share.³⁴ Risks posed to California consumers from the behavior that will likely result from this cartel are many, described below.

1. In a Highly Concentrated Market, Prices Are Higher

Nationally, our country has not faced such a highly concentrated wireless market, largely because the FCC did not look favorably on the last proposed merger between Sprint and T-Mobile, and also denied the proposed AT&T and T-Mobile merger.³⁵

However, the effects of reducing the number of carriers has been studied and found that reducing competition to 3 wireless companies damages competition. The Organization for Economic Cooperation and Development (OECD) routinely publishes reports comparing conditions for various industries in OECD member countries.³⁶ In 2014, the OECD published a report on Wireless Market Structures and Network sharing, which reviewed recent changes in “mobile market participation” where the number of MNOs decreased from four to three.³⁷ Optimal competition exists where there are at least 4 wireless carriers.³⁸ Where the number drops to 3, the OECD report found that the result was higher prices for consumers.³⁹ For example, following Australia’s 2009 merger

³³ Selwyn at Executive Summary, p. x.

³⁴ HMG; see Selwyn at 8.

³⁵ Selwyn at 153.

³⁶ Selwyn at 22.

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ *Ibid.*

between Hutchinson-3 and Vodafone, pricing across carriers became less competitive, primarily due to fewer competitive offerings.⁴⁰

In the past, the Commission has looked at wireless pricing patterns as indicative of enhanced market power.⁴¹ Higher prices relative to other carriers, particularly in the largest California metropolitan markets, provide compelling evidence of market power.⁴² To date, AT&T and Verizon have demonstrated enhanced market power by maintaining higher prices in the face of lower cost offerings from Sprint and T-Mobile.⁴³ In other words, our nation already has a highly concentrated market and the New T-Mobile will only have *less* incentive to maintain lower prices. Higher prices in absolute terms (as opposed to quality-adjusted prices) will mean price sensitive consumers (and particularly low-income consumers) will have less choice and affordability, which is bad for California.

a) Parallel Pricing

The Joint Applicants' already engage in some parallel conduct with their larger rivals, and the merger will create additional incentives and opportunities for the post-merger New T-Mobile to expand into new areas of parallel conduct going forward.⁴⁴

AT&T and Verizon already engage in parallel pricing, which is conduct that, intentionally or not, mirrors the pricing practice of a companies' competitors. Evidence of this is that AT&T and Verizon have been successful in maintaining prices above the industry average, higher than the prices of their smaller rivals.⁴⁵ They have not needed to respond to their rivals' pricing initiatives because of their market power.⁴⁶ If New T-Mobile reaches a size similar to AT&T and Verizon, there is a high likelihood that they

⁴⁰ *Id.* at 23.

⁴¹ Selwyn at 68. *See* D.94-08-022; 1994 Cal. PUC LEXIS 487 *43-*46.

⁴² *Ibid.*

⁴³ Selwyn at 71.

⁴⁴ Selwyn at 74.

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

will begin matching AT&T and Verizon, and forego the kind of “disruptive” competition for which they have been known.⁴⁷ A New T-Mobile, post-merger, would have far more economic incentive to discontinue its disruptive pricing behavior.⁴⁸

Moreover, Sprint and T-Mobile primarily compete against each other rather than against AT&T and Verizon.⁴⁹ Sprint and T-Mobile’s prices expressed in terms of Average Revenue Per Unit (ARPU) have been consistently lower than AT&T and Verizon. In recent years, the record shows that a substantial amount of T-Mobile’s growth was at the expense of Sprint.⁵⁰ By eliminating Sprint, T-Mobile will have no incentive to keep prices substantially lower than AT&T and Verizon’s prices.

The presence of mandatory arbitration provisions (discussed more below) in the Joint Applicants’ existing consumer contracts is yet another indication of parallel conduct in the market for mobile wireless services.⁵¹ Without market power, at least one carrier would likely attempt to entice customers away from the other carriers by doing away with these clauses, but they have not.

b) The Joint Applicants’ Financial Model Finds That Actual Prices Will Be Higher Post-Merger

The result of the proposed merger will be higher prices for consumers in real terms. However, the Joint Applicants’ Application does not acknowledge this fact. Instead, Joint Applicants state that “quality adjusted prices” will be lower, but this is misleading. Joint Applicants’ witness makes unfounded assumptions about the level of added quality that are vague and unverifiable, thus it is subjective to say that consumers will attribute additional value to those added benefits and will be willing to pay higher prices for them.

⁴⁷ Selwyn at 76.

⁴⁸ *Id.* at 74.

⁴⁹ Selwyn at 77, 84.

⁵⁰ *Ibid.*

⁵¹ *Id.* at 94.

In the January 29, 2019 Rebuttal Testimony by Dr. Mark Israel, it states that he and two colleagues, Michael Katz and Bryan Keating (IKK), had analyzed the proposed merger T-Mobile and Sprint, and had submitted their results to the FCC and to the U.S. Department of Justice (DOJ) in the current merger proceedings.⁵² IKK’s FCC report concluded that, post-merger, prices for both postpaid and prepaid services will be higher.⁵³ Instead of acknowledging that prices will be higher, IKK argues that a focus upon the dollar prices that consumers would pay is misplaced because it fails to account for the substantial improvements in service quality (referred to as quality adjusted prices) from the proposed merger.⁵⁴ Even though the absolute dollar price levels would be higher, what they refer to as “quality adjusted prices” would allegedly be lower with the proposed merger.⁵⁵

It is important to emphasize that for New T-Mobile’s customers the bottom line of the bill – that is, the real dollar amount that customers pay, will be higher than what they would otherwise pay to the two standalone firms without the merger.⁵⁶

To explain “quality adjusted prices,” take the example of a computer laptop. If the price of a laptop goes up, but the processor speed and the storage capacity also go up, when viewed on a quality-adjusted basis this could be seen as a price decrease, if (for argument’s sake) the nominal dollar price went up less than the purported value of the improvements.⁵⁷ Thus, whether the price of the laptop actually goes down depends on the dollar value of the improvements.

In this case, Dr. Israel relies on speculative customer surveys to assign a dollar value to the improvement’s customers will purportedly get. The customer surveys measure the desire of customers for greater speed and coverage, but do not assign actual

⁵² See Attached Surrebuttal Testimony of Dr. Lee Selwyn (Surrebuttal of Selwyn) at 2.

⁵³ Surrebuttal of Selwyn at 3.

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*

⁵⁶ *Id.* at 4.

dollar amounts to that desire. Dr. Israel himself admits that the types of consumer surveys that have been conducted by the Joint Applicants “do not allow one to estimate a precise dollar value of specific dimensions of network quality.”⁵⁸ Dr. Israel’s testimony does not support a quantifiable measurement of the service quality gains that Joint Applicants assign to the proposed merger, yet he concludes that the quality-adjusted prices will go down.

Dr. Israel further argues that the synergies of the proposed merger will “lower the combined firm’s marginal costs of serving additional customers” and thus the New T-Mobile will have “incentives to cut prices and expand output.”⁵⁹ However, this incentive is speculative and likely wrong.⁶⁰ Without Sprint as a competitor, New T-Mobile’s incentive to keep its prices substantially lower than AT&T and Verizon will be gone. The incentive will instead be for New T-Mobile to take advantage of Sprint’s absence and raise its prices to AT&T and Verizon levels.

The risk of higher prices as a result of less competition outweighs any speculation that New T-Mobile will pass along the savings in marginal costs that might come about as part of the proposed merger.

2. Risks To Innovation

Joint Applicants claim that innovation will be unaffected (and will in fact improve) if the proposed merger is approved. For example, Joint Applicants state there will be “new and innovative applications such as augmented and virtual reality” as a result of the merger.⁶¹ However, Joint Applicants’ promises to continue their innovative behavior are

(continued from previous page)

⁵⁷ *Id.* at 5.

⁵⁸ *Id.* at 8, citing to Attachment B to the Rebuttal Testimony of Mark A. Israel, January 29, 2019, at 90, 94.

⁵⁹ Surrebuttal of Selwyn at 10.

⁶⁰ *Ibid.*

⁶¹ Application at 18.

aspirational, uncommitted, vague, and cannot be counted on.⁶² There are real risks that less competition will result in less motivation to continue to offer innovative services.

Undoubtedly, T-Mobile and Sprint have had to innovate to compete with each other. T-Mobile began implementing its “uncarrier” strategy in 2012.⁶³ T-Mobile’s “uncarrier” strategy delivered benefits to consumers in California with innovative service offerings, perks and discounts, including:⁶⁴

- Eliminating service contracts and data caps.
- Consumer-friendly billing where taxes and fees are included in the price of the service plan.
- Free unlimited access to Netflix.
- Special discounts and access to concert tickets via a partnership with LiveNation.
- T-Mobile customers receive at no additional cost a 12-month subscription of unlimited, ad-free music on Pandora.
- Phone upgrade plans that eliminated previous contractual waiting periods and gave consumers more freedom in deciding when to upgrade their device.

Sprint has also been an innovator as a standalone company. For example, Sprint first announced its intentions to release unlimited plans in 2008, spurring Verizon to announce its own unlimited plans mere days before Sprint’s official announcement.⁶⁵ Sprint was the first to market with a 4G phone, announcing the release of the HTC Evo in 2010.⁶⁶ In December of 2014, Sprint returned to customer growth after launching its half-off rate plan promotion that targeted Verizon and AT&T by giving customers that switch the same amount of data at half the cost.⁶⁷ In November of 2017, Sprint began to

⁶² Clark at 33.

⁶³ *Ibid.*

⁶⁴ Clark at 34.

⁶⁵ *Id.* at 35.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*

offer its “Sprint Unlimited” customers free access to Hulu’s streaming video content service.⁶⁸ Sprint has continued its partnership with HTC and recently announced a “5G mobile smart hub” set for release in the first half of 2019.⁶⁹ Ryan Sullivan, Vice president of Product Engineering and Development at Sprint, stated that Sprint will begin to compete in the in-home internet access space with the introduction of the new HTC “5G mobile smart hub.”⁷⁰

Joint Applicants have made no firm commitments or disclosed specific innovations that will come as a result of the proposed merger. The innovations that they cite to, such as virtual reality, in home broadband, and a 5G network, are things that will happen without the merger. However, past innovations such as those listed above are a result of existing sufficient competitive forces, which will likely be lost post-merger.⁷¹

There is a real risk that innovation will be stifled as a result of the proposed merger. The OECD report mentioned above suggests that optimal competition occurs in markets with at least 4 MNOs, and that for countries that had dropped from 4 national carriers to 3, the result was higher prices for consumers, deteriorating service quality, and reduced innovation.⁷²

The OECD report noted that improving service quality and investments in network infrastructure are tools for maintaining and increasing a carrier’s market share, stating “In markets introducing new players or maintaining at least four operators, investments in new network infrastructure increase and are pulled forward by existing operators, to defend against challengers.”⁷³ With fewer competitive alternatives, the MNOs will decrease their investments in maintaining quality standards.⁷⁴ OECD’s report concludes

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

⁷⁰ *Ibid.*

⁷¹ Selwyn at 23.

⁷² *Ibid.*

⁷³ Selwyn at 24.

⁷⁴ *Ibid.*

that “a larger number of MNOs is often the source for innovative offers that challenge existing market wisdom and practices.”⁷⁵ Creative and challenging service offerings begin to disappear following a reduction in the number of MNOs.⁷⁶

Despite being smaller than AT&T and Verizon, T-Mobile and Sprint have a track record of successfully disrupting the mobile market through innovative, consumer friendly service offerings.⁷⁷ The examples above clearly demonstrate the benefits of competition on innovation from smaller, more disruptive companies.

The elimination of a competitor by combining these two companies poses a real risk of stifling the kinds of innovative products that have come from competition between the two.

3. The Merger Would Negatively Impact Service Quality

Joint Applicants’ service quality, in terms of speed and coverage, will not likely improve as a result of the proposed merger. For other typical service quality metrics such as outages or call drop rates, Joint Applicants’ wireless Application fails to provide sufficient analysis. But the Public Advocates Office’s examination looked at all the service quality metrics, and it demonstrates that existing T-Mobile’s service is already good, and Sprint’s service quality has shown steady improvement.

Quality of wireless service is typically measured by customer satisfaction. Customer satisfaction is largely driven by such factors as service coverage, service outages, call drop rates, call connection rates, average data speed, and average latency.⁷⁸ The merger Application does not address these factors.

Joint Applicants’ Application discusses the benefits that a 5G network will have on service quality in terms of just speed and coverage. Joint Applicants claim that

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*

⁷⁷ Clark at 36.

⁷⁸ Pub Adv-006, Testimony of Cameron Reed on Service Quality and Public Safety (Reed Service Quality) at 10.

standalone T-Mobile “lacks the spectrum, sites and sufficient financial resources to build a robust nationwide 5G network on its own to reach comparable capacity and quality to what New T-Mobile can achieve.”⁷⁹ Thus, by touting the 5G network Joint Applicants claim service quality will improve, but those improvements will occur with a 5G network regardless of the proposed merger and are not merger dependent. The Application does not address other items that affect service quality listed above, such as outages, call drop rates, etc., which are addressed by the Public Advocates Office (discussed more below).

a) Coverage Will Not Increase as a Result of the Proposed Merger

In addition to addressing service quality issues that the Joint Applicants fail to address, the Public Advocates Office’s testimony rebuts the Application’s claims regarding speed and coverage.⁸⁰ Wireless coverage is a significant component of a customer’s satisfaction with wireless service (although not the only factor).⁸¹ Joint Applicants tout the benefit of Sprint customers being able to enjoy expanded wireless coverage that will come with T-Mobile’s more extensive wireless network. However, Sprint customers already enjoy the benefits of T-Mobile’s network through roaming agreements.⁸² Customers also have the option today to switch carriers if they prefer the coverage offered by another network (e.g., Sprint customers could switch to T-Mobile and vice versa). The proposed merger would eliminate a customer choice by eliminating a competitor in the wireless market, leaving customers with less recourse if they are not satisfied with their carrier’s service quality.

⁷⁹ Application at 27.

⁸⁰ See generally, Reed Service Quality testimony.

⁸¹ Reed Service Quality at 10.

⁸² *Ibid.* Roaming agreements are contracts signed between cellular carriers that provide the ability for wireless customers to make and receive voice calls and use data when they travel outside of their provider’s network. Roaming agreements benefit customers by increasing the service coverage on their cellular provider’s network.

Sprint supplements its coverage footprint with roaming agreements.⁸³ Because of the roaming agreements, Sprint customers who travel to areas with no Sprint coverage do not necessarily lose service. But even without roaming agreements and Sprint’s smaller geographic coverage area, Sprint still covers a significant number of people in its service area.⁸⁴ Recent reports released by the FCC estimate that Sprint covers 93 percent of total US Population (POPs) and T-Mobile covers 96.6 percent of total US POPs.⁸⁵ Sprint customers have the benefit of a lower-priced service, while retaining decent coverage without the merger.

As discussed more thoroughly below, Sprint and T-Mobile give rural areas, which have low population density and often difficult geography, a low business priority. The proposed merger is not necessary to provide more spectrum for rural areas and will not provide more capital for investment in rural area infrastructure. Each of the two companies already has unused spectrum capacity in rural areas, thus combining the two companies’ spectrum holdings in these low-density communities will do nothing to enhance the quality of service in rural areas.⁸⁶

b) Speeds Will Increase as a Result of a 5G Network, Not the Proposed Merger

Data speeds are another important factor in customer satisfaction and quality of service. With regard to “speed,” the Public Advocates Office’s testimony describes how 5G speed standards are proscribed by the International Technical Union, discussed in more detail below.⁸⁷ Simply put, a new 5G network either meets the speed standards or it does not – in other words, there is nothing inherent to the merger that will make a new 5G network “faster.” Joint Applicants attempt to describe the network as “broader” and

⁸³ *Ibid.*

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*

⁸⁶ Selwyn at 160.

⁸⁷ Reed at 10. 5G speeds are defined as 100 Megabits per second (Mbps) average broadband speeds and 20 Gigabit per second (Gbps) peak broadband speeds.

“deeper”, but these are not defined service quality standards, and the Joint Applicants do not make any promises about how much “faster” the 5G network would be if the merger is approved. Any service quality improvements that come about as a result of a 5G network are not merger-specific benefits.

The Public Advocates Office’s testimony shows that New T-Mobile’s service quality (in terms of speed and coverage of a new 5G network) will not necessarily improve as a result of the merger. Also, since the Joint Applicants’ Application largely does not address other items that affect service quality, such as outages and call drop rates, the Application fails to make the case that service quality will improve as a result of the merger.

c) Other Factors that Impact Service Quality

Another factor that affects service quality is the ability of customers to actually use the 5G network. The benefits of a 5G network can only be realized if customers have handsets that can access the 5G network, which requires a 5G phone. In other words, customers without 5G handsets will not see any benefits of the 5G network. The Joint Applicants exaggerate the needs of consumers and benefits of the 5G coverage for consumers because customers will not have easily available 5G-capable handsets for several more years.

Other key metrics of service quality for wireless voice service include Call Drop Rate (CDR) and Call Failure Rate (CFR). The Public Advocates Office has examined those metrics and found that Sprint’s Call Drop Rates and Call Failure Rates have decreased since 2015.⁸⁸ The data further shows that in both CDR and CFR, T-Mobile performs slightly better than Sprint in the 1-year comparison window, with less dropped calls and less failed calls.⁸⁹ However, Sprint’s gains have occurred independently of the

⁸⁸ Reed Service Quality at 14.

⁸⁹ *Ibid.*

merger and Sprint is steadily improving its voice service offerings, without merging with T-Mobile.²⁰

4. The Proposed Merger Would Decrease Competition in the Prepaid Market

The Scoping Ruling in this proceeding lists “pre-paid services” as one of the factual issues to be considered in this proceeding.²¹ Sprint and T-Mobile are two of the largest providers of prepaid services, on which low-income customers rely. The Public Advocates Office has determined that a decrease in competition in the prepaid services market would negatively impact low-income customers by raising prices for such services.

“Prepaid wireless” refers to a service for which customers pay in advance for voice minutes, text messages, or data units on a mobile phone. This is different from “postpaid services,” in which customers are charged for usage at the end of the billing cycle.²²

After the merger, New T-Mobile would control roughly 59% of the prepaid market, and the prepaid market HHI will jump by 1468 points – more than seven times the HMG’s 200-point threshold.²³ A post-merger New T-Mobile will have overwhelming dominance of the prepaid services market, which will likely diminish its support for MVNOs that offer those services, and encourage it to raise prices for prepaid services. For many low-income consumers, prepaid services are the only type of wireless for which they are qualified.

The Public Advocates Office witnesses Eileen Odell and Dr. Lee Selwyn presented testimony on the issue of impacts to the prepaid market of the proposed merger. Ms. Odell found that there are two primary negative effects should the Commission approve the merger: first, the elimination of a direct competitor with regard to Sprint and T-

²⁰ *Ibid.*

²¹ Scoping Ruling at 4.

²² Exhibit Pub Adv-004, Testimony of Eileen Odell (Odell) at 9.

²³ Selwyn at 64.

Mobile’s own prepaid plans and brands; second, the elimination of a competing carrier that provides wholesale service to MVNOs and Mobile Virtual Network Aggregators (MVNAs) – wireless service resellers that often cater to the prepaid market.⁹⁴

T-Mobile serves the greatest number of prepaid customers of the four major wireless carriers, marketing its prepaid plans using its T-Mobile and MetroPCS brands.⁹⁵ Sprint markets its prepaid services under the Sprint, Boost Mobile, Virgin Mobile, and Assurance Wireless by Virgin Mobile brands.⁹⁶ T-Mobile has 20,668,000 prepaid customers; Sprint has 8,997,000.⁹⁷ The total number of prepaid customers for the 4 major carriers is 50,403,000.⁹⁸ Under the proposed merger, New T-Mobile would have 58.9% of prepaid customers.⁹⁹

New T-Mobile would have a prepaid market share nearly *twice* that of the next leading competitor, AT&T.¹⁰⁰ Verizon is a minimal competitor in the prepaid market.¹⁰¹

Joint Applicants’ assert that non-traditional carriers such as TracFone serve as competitive checks in the prepaid wireless market.¹⁰² However, TracFone is a reseller; the FCC excludes non-facilities-based providers from its analysis of market concentration, because MVNOs such as TracFone rely on the Joint Applicants for access to their networks.¹⁰³ In the FCC Wireless Competition Report, the FCC’s analysis of the

⁹⁴ Odell at 10.

⁹⁵ *Id.* at 13.

⁹⁶ *Ibid.*

⁹⁷ *Id.* at 14.

⁹⁸ *Ibid.*

⁹⁹ *Ibid.* The Public Advocates Office was unable to obtain California specific data because the major wireless carriers do not make public California-specific data on their shares of prepaid subscribers.

¹⁰⁰ *Ibid.*

¹⁰¹ Odell at 15. DISH Network Corporation, Petition to Deny, WT Docket No. 18-197 at 54, n. 208: “Verizon’s former CFO admitted that Verizon is ‘really not competitive in that [prepaid] environment.’ Verizon Communications, Inc., Q1 2016 Earnings Call, Fair Disclosure Wire (April 21, 2016).

¹⁰² A.18-07-012 at 31.

¹⁰³ Odell at 15. *See* FCC Staff Analysis of AT&T/T-Mobile Merger at ¶ 41, n.126.

prepaid market stated that “[i]t’s crucial the MVNO does not compete to any meaningful degree with the host.”¹⁰⁴

Sprint and T-Mobile currently compete head-to-head for prepaid customers, resulting in lower-priced plans than those offered by AT&T and Verizon.¹⁰⁵ For example, T-Mobile’s MetroPCS charges \$50 per month and Sprint’s Boost Mobile also charges \$50 per month, taxes and fees included.¹⁰⁶ AT&T and Verizon’s most-comparable unlimited data plans are offered at \$65, taxes and fees are not included; Verizon’s plan price increases to \$70 if the customer is not enrolled in autopay.¹⁰⁷ T-Mobile and Sprint are each other’s closest competitors and the loss of one decreases competitive pressure on the remaining entity.¹⁰⁸

5. The Proposed Merger Presents Risks to the LifeLine Program

The Amended Scoping Ruling lists the issue of how the proposed merger would impact the LifeLine program.¹⁰⁹ The testimony of Eileen Odell finds that the proposed merger presents a risk to the California LifeLine program.¹¹⁰

The California/Federal LifeLine programs provide discounts on phone service to qualifying low-income consumers in order to ensure continued access to high-quality basic telephone service at affordable rates.¹¹¹ It is not a mandatory service – carriers may elect to not participate in the program.

¹⁰⁴ Odell at 15. FCC 20th Wireless Competition Report at n.54.

¹⁰⁵ Odell at 16.

¹⁰⁶ *Id.* at 17.

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*

¹⁰⁹ Scoping Ruling at 3.

¹¹⁰ Odell at 23.

¹¹¹ Odell at 23. *See* Public Utilities Code Section 871.7(a); 47 U.S.C. § 254 (b).

Sprint, through its Virgin Mobile brand, is the only MNO that participates in the California LifeLine program.¹¹² Under the trade name of “Assurance Wireless brought to you by Virgin Mobile,” Virgin Mobile serves roughly 482,000 LifeLine wireless customers in California, over 200,000 more customers than the next largest LifeLine wireless carrier, and more than all other LifeLine wireline carriers combined.¹¹³ Currently, T-Mobile does not provide LifeLine service.¹¹⁴

Joint Applicants’ statements about continuing to provide LifeLine post-merger have been contradictory at best, but it appears there is a substantial risk that New T-Mobile will discontinue LifeLine. While Joint Applicants’ testimony presents a rosy future where it never eliminates LifeLine, its public statements give cause for concern for the New T-Mobile LifeLine offering post-merger. For example, T-Mobile has continuously refused to participate in the California LifeLine program.¹¹⁵ T-Mobile requested to cease providing federal Lifeline altogether, despite providing it in the past.¹¹⁶ T-Mobile has made public comments regarding the “uneconomical” nature of the LifeLine services provided by its wholesale customers.¹¹⁷ T-Mobile does not appear to be committed to the LifeLine program, and has shown far less commitment than Sprint.

¹¹² Odell at 23.

¹¹³ *Ibid.*

¹¹⁴ *Ibid.*

¹¹⁵ Odell at 26. Remarks of Catherine Sandoval, Associate Professor, Santa Clara University School of Law and Former CPUC Commissioner, made at the CPUC Workshop on Proposed Transfer of Sprint Communications, Dec. 10, 2018: “If you were to see this entity merged, I particularly worry [] about the commitment to California LifeLine. I must say with T-Mobile, I talked to T-Mobile many, many, many times, to encourage them to participate in California LifeLine. And their participation was never forthcoming the way Sprint’s was.”

¹¹⁶ Odell at 26. *T-Mobile Notice of Relinquishment of LifeLine-Only Eligible Telecommunications Carrier Designations*, WC Docket No. 09-197 (Sept. 12, 2014).

¹¹⁷ Odell at 26.

6. Risks to the Wholesale Market

The Scoping Ruling includes the issue of the proposed merger's potential risks to wholesale services.¹¹⁸ The 4 MNOs (AT&T, Verizon, Sprint, T-Mobile) sell access to their wireless networks to resellers, including MVNOs, on a wholesale basis.¹¹⁹ They control the infrastructure necessary for smaller carriers to participate in the wireless market.¹²⁰ Currently, Sprint and T-Mobile are major providers of MVNO wholesale service agreements; however if the merger is approved MVNOs could be forced out of the market or subjected to increased prices for wholesale service.¹²¹

Currently, MVNOs provide services to low-income customers by filling in gaps in the MNOs service offerings through the provision of ultra-low priced, low-GB data plans the 4 MNOs consider uneconomical to offer themselves.¹²²

Sprint and T-Mobile currently sell wholesale services, in part, because AT&T and Verizon do not place a substantial amount of emphasis on that market.¹²³ As discussed above, if the proposed merger is approved the New T-Mobile will be roughly the same size as AT&T and Verizon. All three firms will have an increased incentive to retain potential retail revenues available rather than cede that revenue to resellers.¹²⁴ A facilities-based carrier's incentives to allow and to affirmatively support resale of their services diminishes as its market power increases.¹²⁵

But virtually all of the MVNOs provide solely prepaid services, which are heavily depended on by low-income consumers.¹²⁶ Denying the proposed merger would benefit

¹¹⁸ Odell at 19.

¹¹⁹ *Ibid.*

¹²⁰ *Ibid.*

¹²¹ Odell at 21.

¹²² Selwyn at 90.

¹²³ Selwyn at 91.

¹²⁴ *Ibid.*

¹²⁵ Selwyn at 85.

¹²⁶ *Ibid.*

California by ensuring ongoing competition to provide wholesale service to MVNOs that serve low-income customers.

7. The Merger Could Erode Protection on Customer Data

The Amended Scoping Ruling lists impacts of the proposed merger on “customer privacy” as one of the issues to be considered in this proceeding.¹²⁷ Telecommunications companies typically use third-party vendors for a variety of services: billing, network analysis, location-based services, and, increasingly, advertising.¹²⁸ These services often require third parties to access customer information, which exposes companies to an increased risk of customer information data breaches.¹²⁹ The number of data breaches that originate with third party vendors is increasing; a recent study found that 49 percent of respondents in 2016 reported a third party data breach, which increased to 56 percent of respondents in 2017, and 61 percent in 2018.¹³⁰ The harms from these data breaches are well-documented. Both Sprint and T-Mobile have already experienced third-party data breaches involving customer data.¹³¹ In the Experian data breach that occurred in 2015, hackers stole the social security numbers and personal information of 15 million T-Mobile customers.¹³²

However, not all data breaches are a result of theft. In 2018, companies began reporting how unauthorized individuals had been able to access wireless customers’ real-time location information from “location aggregators,” which are third-party service providers that purchase and resell customer geolocation information for a variety of purposes.¹³³ In June 2018, Verizon, AT&T, T-Mobile, and Sprint announced that they

¹²⁷ Scoping Ruling at 3.

¹²⁸ Pub Adv-007, Testimony of Kristina Donnelly (Donnelly) at 6.

¹²⁹ Donnelly at 6.

¹³⁰ *Ibid.*

¹³¹ *Ibid.*

¹³² *Ibid.*

¹³³ Donnelly at 7.

would terminate their agreements with these location aggregators.¹³⁴ Recent public reports show that third-party companies with ties to both Sprint and T-Mobile have been illegally selling customer location information for many years.¹³⁵

Carriers must manage the risk of data breaches through their own risk management policies and practices, as well as through contracts with third parties.¹³⁶ The Public Advocates Office examined both Sprint's and T-Mobile's third-party policies and practices to determine whether both companies employ industry best practices when they provide third parties access to their customers' data and information.¹³⁷

On February 25, 2019, ALJ Bemesderfer ruled that the Public Advocates Office may include new evidence and arguments responsive to Joint Applicants' rebuttal testimony and exhibits in this opening brief. Ms. Donnelly has provided in Attachment A additional analyses of T-Mobile's system for managing the risks posed by third-party access of customer information, in response to the new information provided by T-Mobile in Ms. Susan Brye's Rebuttal Testimony.

The information provided to the Public Advocates Office indicates that T-Mobile's Third-Party Risk Management (TPRM) program contains important gaps that put customers at risk. The documentation T-Mobile submitted to the Public Advocates Office contain contained multiple errors, inconsistencies, and conflicting information that seems to have resulted from changes T-Mobile made to the program in 2018; although T-Mobile states these recent changes have improved the TPRM program, the information they provided does not support this claim. In addition, some of T-Mobile's claims about the TPRM program are not reflected in any of the policies or contractual documents T-Mobile provided to the Public Advocates Office. T-Mobile's written policy governing the use of customer location information is deficient in ways that could put customers at risk.

¹³⁴ Donnelly at 7.

¹³⁵ Supplemental Declaration of Kristina Donnelly at 4.

¹³⁶ Donnelly at 7.

¹³⁷ Donnelly at 8.

T-Mobile's privacy policy does not specifically require notification by third party suppliers, nor does it specify what information the supplier must report, to whom, or when.

The Public Advocates Office recommends that the Commission impose the privacy conditions listed in this Opening Brief (Section V, below) to ensure that New T-Mobile is adequately protecting against customer information data breaches, if the proposed merger is approved.

8. Privacy for Children¹³⁸

Children of all ages use cell phones, typically given to them by a parent or guardian.¹³⁹ A Pew Research report from 2009 showed that, for children under the age of 18, 43 percent had first received a mobile device when they were under 13.¹⁴⁰ Children, especially the very young, are much more vulnerable to data breaches and predatory marketing than adults.¹⁴¹ As a result, children require additional, increased protections when they use Internet-connected devices.¹⁴²

Federal law protects children's online privacy and safety through the Children's Online Privacy Protection Act (COPPA).¹⁴³ According to COPPA, companies must:

- give guardians a way to review the personal information collected from their child;
- give guardians a way to revoke their consent and refuse the further use or collection of personal information from their child; and
- delete a child's personal information upon request from the guardian.

It is important to note that COPPA rules only apply when companies have "actual knowledge" that the child is under 13.¹⁴⁴ The Public Advocates Office has determined

¹³⁸ The Public Advocates Office uses the age of 13 as the definition of a child. Donnelly at 20.

¹³⁹ Donnelly at 20.

¹⁴⁰ *Ibid.*

¹⁴¹ *Ibid.*

¹⁴² *Ibid.*

¹⁴³ [16 CFR Section 312. Donnelly at 21.](#)

that Sprint does not ask adults whether they are providing a cell phone to a child under 13. Sprint stated that it does not “speculate regarding, any other circumstances in which a parent may give or elect to make a Sprint device “available” to an end user that may be under the age of 13.”¹⁴⁵ Thus, while Sprint claims that it provides additional data collection and management controls to primary account holders who provide a device to a child under the age of 13, it does not actually know the age of its customers other than the primary account holder.

Similarly, T-Mobile does not take steps to discover a customer’s age. If a customer provides a cell phone to a child, “any information associated with such use will be treated as your information in accordance with this [Privacy Policy] Statement.”¹⁴⁶ According to T-Mobile’s Privacy Policy, the company does not provide any additional protection to devices that belong to children, beyond what is already provided to customers of any age.¹⁴⁷

Neither T-Mobile’s nor Sprint’s policy provides adequate protection of children’s information.¹⁴⁸ T-Mobile automatically enrolls all customer devices in their interest-based advertising program. As a result, children who utilize T-Mobile services may have their data and information tracked, used, or shared in a way that is inappropriate given their age.¹⁴⁹

Research suggests that children from low-income families may be less protected than those from wealthier families.¹⁵⁰ One study found that only 35 percent of parents making \$20,000 or more have helped their children set up privacy settings for a social

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¹⁴⁴ Donnelly at 21.

¹⁴⁵ *Ibid.*

¹⁴⁶ Donnelly at 25.

¹⁴⁷ Donnelly at 25.

¹⁴⁸ *Id.* at 26.

¹⁴⁹ *Ibid.*

¹⁵⁰ Donnelly at 25.

media site; for parents making less than \$20,000 annually, this figure drops to 18 percent.¹⁵¹ Protections like COPPA exist, in part, to protect children’s privacy and, in turn, their future, regardless of whether their guardians are themselves actively involved in its monitoring and control.¹⁵²

The Public Advocates Office has determined that Sprint and T-Mobile take insufficient steps to discover the users age. The standalone companies have policies in place to ensure that its customers are above the age of 18, but nothing prevents the account holder from providing a phone to an underage family member.¹⁵³ Therefore, if the proposed merger is approved, New T-Mobile should be required to allow customers to identify devices that belong to children and establish a program that would give primary account holders increased control over the data generated by devices that belong to children.

9. Mandatory Arbitration Clauses

The Amended Scoping Ruling lists “mandatory arbitration clauses” as one of the issues to be determined in this proceeding.¹⁵⁴ To be a T-Mobile customer, new customers are subject to mandatory arbitration/class action waiver provisions buried deep in their contract.¹⁵⁵ Customers would have to be truly dedicated to find the arbitration provisions, though, because the Customer Service Agreement (CSA) would fill roughly 11 pages of 8-1/2 by 11 inch paper.¹⁵⁶

¹⁵¹ *Ibid.*

¹⁵² Donnelly at 25.

¹⁵³ *Ibid.*

¹⁵⁴ Scoping Ruling at 4.

¹⁵⁵ Selwyn at 181. If customers can find the “opt-out” provision in the contract, they have 30 days to exercise it before becomes arbitration becomes mandatory.

¹⁵⁶ *Ibid.*

There are no benefits to consumers from mandatory arbitration.¹⁵⁷ The arbitration clauses merely inoculate the service provider against the lawsuits that would impose responsibility for their practices.¹⁵⁸

If approved, the Commission should impose a condition that New T-Mobile agree to discontinue its use of mandatory arbitration/class action waiver provisions in its consumer agreements.

B. The Alleged Benefits Of The Merger Are Exaggerated and Do Not Outweigh The Risks

The Joint Applicants have described a number of alleged benefits of the proposed merger, which upon closer examination are not specific, measurable, enforceable, and verifiable. As described below, despite the claims made by the Joint Applicants, the proposed merger will not result in the promised benefits: capital expenditures in California will likely not increase; a 5G network will be built with or without the merger; T-Mobile will not “run out” of spectrum; and rural coverage will not likely increase.

Joint Applicants’ “benefits” theory is premised on the idea that the increased scale of New T-Mobile’s operations will have financial benefits that will somehow be passed along to consumers.¹⁵⁹ However, as the federal merger guidelines provide: “Efficiency claims will not be considered if they are vague, speculative, or otherwise cannot be verified by reasonable means. Projections of efficiencies may be viewed with skepticism, particularly when generated outside of the usual business planning process.”¹⁶⁰

Assuming for arguments’ sake that some gains will come to fruition, the detrimental effects outweigh any speculative or vague gains. Most of the alleged gains

¹⁵⁷ *Id.* at 184.

¹⁵⁸ *Ibid.* See, e.g., *Carnegie v. Household Int’l, Inc.*, 376 F. 3d 656, 661 (“The realistic alternative to a class action is not 17 million individual suits, but zero individual suits, as only a lunatic or a fanatic sues for \$30.”)

¹⁵⁹ Selwyn at 132.

¹⁶⁰ Selwyn at 135.


are not specific to the merger but will come about as a result of a 5G network, which will be built without the merger.

1. The Proposed Merger Will Not Increase Capital Investments in California

Joint Applicants tout “significant” increases in capital expenditures as a result of the proposed merger.¹⁶¹ Joint Applicants claim that “synergies” and “cost-savings”, (without explaining where the alleged synergies will come from – higher prices? layoffs? store closures? service quality cuts?), will result in an extra \$40 billion (nationwide) that the New T-Mobile will invest in capital expenditures, including in California.¹⁶²

The Public Advocates Office’s financial analyst determined that capital expenditures will not increase as a result of the proposed merger.¹⁶³ Using Joint Applicants’ response to data requests in this proceeding, Mr. Clark found that, in fact, New T-Mobile’s planned capital expenditures for investments in California over the next five years are less than the combined planned investments of Sprint and T-Mobile as standalone companies. The following table was compiled from Joint Applicants’ responses. It shows that the standalone companies’ have stated plans to invest **Begin**

Confidential >> 

 **<< End Confidential.** The Joint Applicants’ public statements that investment would increase do not match up with the reality presented in the Application.

¹⁶¹ Application at 22.

¹⁶² Application at 22.

¹⁶³ Clark at 29.

Figure 13. Capital Investments in California Lower for New T-Mobile¹⁶⁴ (Millions)

Begin Confidential >>

	Sprint	T-Mobile	Sprint + T-Mobile	New T-Mobile
2019	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2020	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2021	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2023	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

<< End Confidential

Sprint’s network investments will continue without the merger.¹⁶⁵ Sprint’s board recently approved an increase to the company’s total planned capital expenditures nationwide (excluding handsets) for fiscal years 2018 through 2022 by **Begin**

Confidential >> [REDACTED] **<< End Confidential¹⁶⁶**

Sprint explained to the Public Advocates Office that the 5 percent increase “was adopted in order to allow Sprint **Begin Confidential >>** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<< End Confidential¹⁶⁷

Mr. Brandon Dow Draper, Chief Commercial Officer for Sprint and Joint Applicants’ witness regarding Sprint’s financial condition, was cross-examined by the Public Advocates Office. He affirmed Sprint’s plans to continue to increase capital expenditures in network improvements. On cross-examination, he stated:

¹⁶⁴ Clark at 30.

¹⁶⁵ Clark at 31.

¹⁶⁶ *Ibid.*

- “We've got tremendous amounts of debt. That doesn't mean we can't continue to borrow to invest in our network. That is the current stated plan.”¹⁶⁸
- “Sprint will be able to borrow money. Again, my testimony is not that Sprint is going bankrupt, it is not able to borrow more money, not able to remain a competitor. This -- specifically what we are talking about here [referring to spectrum backed notes] is there is a certain amount of borrowing we will be able to do against our spectrum.”¹⁶⁹

If anything, the proposed merger will disincentivize New T-Mobile from increasing capital investments in California as a result of decreased competition.¹⁷⁰ The Joint Applicants provide no explanation in their Application as to how, when, or how much investment in California will increase, stating only, “[T]he expected synergies and anticipated capital expenditures have been calculated based on national data.”¹⁷¹

Capital investment responds to profit opportunities, which have tended to be low in rural areas due to the high costs and relatively low potential revenues from small populations.¹⁷² The Joint Applicants have offered no evidence that their merger would materially improve profit opportunities in rural areas to the point where additional capital would flow to these communities.¹⁷³ Thus, Joint Applicants have not made a sufficient showing that capital expenditures in California will increase as a result of the merger.

2. A 5G Network Is Not a Merger-Specific Benefit

Many of the statements made by Joint Applicants seem to suggest that a 5G network will not be built by either Sprint or T-Mobile as standalone companies. For

(continued from previous page)

¹⁶⁷ *Ibid.*

¹⁶⁸ 633: 10-13

¹⁶⁹ 649: 18-25

¹⁷⁰ Clark at 32.

¹⁷² Selwyn at 161.

¹⁷² Selwyn at 161.

¹⁷³ Selwyn at 161.

example, Mr. Michael Sievert, T-Mobile’s President and Chief Operating Officer and chief witness, stated that “impeding” the merger “will prevent a world-leading 5G network from being built in California.”¹⁷⁴ To be clear, it is undisputed that Sprint and T-Mobile will build a 5G network if the proposed merger does not happen. Joint Applicants have stated repeatedly that “each company will deploy 5G” if the proposed merger is not approved.¹⁷⁵ A 5G network is not a unique benefit of the merger – without the merger, each company will build a 5G network.

Joint Applicants focus on words like “world-leading” to attempt to argue that the standalone companies would build inferior 5G networks. In other words, they admit that two excellent 5G networks will be built, but argue that New T-Mobile would build a 5G network more quickly and with greater “breadth, depth, speed and capacity.”¹⁷⁶

However, the promises made by Joint Applicants about greater depth and speed are vague and non-committal. 5G service either meets the parameters of 5G or it does not – it makes no sense to say that because one carrier could allocate more spectrum to 5G than another carrier some 5G service is better than other 5G service. Joint Applicants’ promises to carry no weight.

As time passes, technological innovation and continued infrastructure investment will improve 5G performance independent of the merger, just like with 4G LTE.¹⁷⁷ The alleged benefits that 5G will provide for deeper, faster, or broader speeds are merely a function of technological advancement and not unique to the merger.¹⁷⁸ While the Joint Applicants are beginning 5G infrastructure deployment, 5G standards are still in the final

¹⁷⁴ Joint Applicants Ex. 2, Testimony of G. Michael Sievert (Sievert) at 9.

¹⁷⁵ Joint Applicants Ex. 3, Testimony of Neville Ray (Ray) at 7.

¹⁷⁶ Ray at 7.

¹⁷⁷ Pub Adv-005, Testimony of Cameron Reed on Fifth Generation Wireless Service (Reed 5G) at 25 and Reed Service Quality at 19. Initial 4G LTE specifications targeted 10 Mbps average broadband speeds and T-Mobile currently provides average 4G LTE speeds of 31 Mbps according to Ookla.

¹⁷⁸ Pub Adv-005, Testimony of Cameron Reed on Fifth Generation Wireless Service (Reed 5G) at 10.

phases of development and the full scope of New T-Mobile’s needs for “broader” and “deeper” speeds is as yet unknown.¹⁷⁹

Moreover, T-Mobile itself believes that it has sufficient spectrum to deploy a 5G network. As Mr. Ray stated during cross examination, when questioned about a blog post he personally wrote in 2017: “You can deploy 5G on any frequency, and in the future, all spectrum will be 5G spectrum. 2G, 3G and 4G are available across low, mid and high-band. Why would 5G be any different? It won’t.”¹⁸⁰

a) A 5G Network Must Meet Certain Specifications

Concerns about “depth, speed, and capacity” are unfounded. A 5G network is defined by the International Technical Union – Radiocommunication Sector (ITU-R) in its International Mobile Telecommunications for 2020 framework (IMT-2020).¹⁸¹ The ITU-R’s IMT-2020 framework set forth discrete specifications and use cases that a 5G wireless service needs to meet.¹⁸² Some of the key parameters are that 5G service must provide 100 Megabits per second (Mbps) average broadband speeds and 20 Gigabit per second (Gbps) peak broadband speeds.¹⁸³ Any 5G service must achieve those speeds, which will create the benefits promised by Joint Applicants.¹⁸⁴ 5G service either meets those parameters or it does not – Joint Applicants’ claims that somehow the proposed merger will allow for a broader and deeper 5G network simply make no sense. The alleged benefits of deeper, faster, or broader speeds are merely a function of being 5G and not unique to the merger.¹⁸⁵ While the Joint Applicants are beginning 5G infrastructure

¹⁷⁹ *Ibid.*

¹⁸⁰ Transcripts at 421:3-11.

¹⁸¹ Pub Adv-005, Testimony of Cameron Reed on Fifth Generation Wireless Service (Reed 5G) at 10.

¹⁸² *Ibid.*

¹⁸³ *Ibid.*

¹⁸⁴ *Ibid.*

¹⁸⁵ *Ibid.*

deployment, 5G standards are still in the final phases of development and the full scope of T-Mobile's needs for "broader" and "deeper" speeds is as yet unknown.¹⁸⁶

b) Additional Spectrum Is Not Necessary To Meet Demand For 5G, Which Does Not Exist Yet

Joint Applicants also argue that 5G must be built in a very short timeframe.¹⁸⁷ However, the Public Advocates Office's witness Cameron Reed examined the market for 5G devices, which at the moment is non-existent. As mentioned above, it is undisputed that the uses for a 5G network are either still in development and not fully understood (e.g., in home broadband), or unknown.

As of today, there are no customers with handsets that can utilize a 5G network; customers will have to acquire new handsets in order to use 5G wireless services.¹⁸⁸ 5G capable handsets are going to be released intermittently over the course of 2019.¹⁸⁹ Early 5G capable phones will require multiple mmWave antennas that will cause these phones to be bulky, expensive, and have a shorter battery life. As such, consumer adoption of 5G capable devices will take time.¹⁹⁰

The uses for a 5G network are still under consideration and development. In addition to a lack of 5G capable handsets, it will take years to fully adopt 5G service, which means New T-Mobile's aggressive deployment plans are not necessary to meet the demand.¹⁹¹ Joint Applicants have stated that they will continue to maintain LTE services going forward, with or without the merger, which is prudent as customers will continue to use LTE services past 2025. Given that adoption of 5G services are expected to be

¹⁸⁶ *Ibid.*

¹⁸⁷ Ray at 7.

¹⁸⁸ Reed 5G at 13.

¹⁸⁹ *Ibid.*

¹⁹⁰ *Ibid.*

¹⁹¹ *Ibid.*

around 50 percent by 2025, it is reasonable to expect that there is sufficient time to build a 5G network without the proposed merger.¹⁹²

Network maps presented by Joint Applicants' witness Neville Ray show that 5G deployment by the standalone companies will be substantial by 2021.¹⁹³ For example, by 2021 T-Mobile will cover 100% of Fresno County's population with 5G service, without the merger.¹⁹⁴ For Los Angeles County, by 2021 T-Mobile will cover 90% of the population with 5G service, despite T-Mobile alleged lack of mid-band spectrum.¹⁹⁵

Thus, without the merger California will be largely covered by 5G service coverage in a reasonable timeframe, even in rural areas like Fresno. The Public Advocates Office has shown that existing plans by the standalone companies are sufficient to meet customers' needs in the near future.

3. Existing Spectrum Is Sufficient To Deploy 5G Networks

Joint Applicants have stated that the merger is necessary so that Sprint and T-Mobile can have the spectrum to quickly build a 5G network.¹⁹⁶ Joint Applicants claim that additional spectrum is "essential" to "accelerate and deliver a superior 5G network that will be better and more expansive."¹⁹⁷ However, as Mr. Ray stated: "[A]ll spectrum will be 5G spectrum."¹⁹⁸ The record shows that Sprint and T-Mobile have sufficient spectrum and their quest for additional spectrum is not necessary to provide 5G.

To illustrate this, the Public Advocates Office questioned T-Mobile's witness regarding a series of coverage maps Joint Applicants produced for each county in

¹⁹² *Ibid.*

¹⁹³ Ray, Attachment D.

¹⁹⁴ Transcript 401:19-29.

¹⁹⁵ 427:2-6.

¹⁹⁶ Application at 2.

¹⁹⁷ Application at 3.

¹⁹⁸ 421:3-11.

California.¹⁹⁹ The coverage maps for each county show that the standalone companies are able to begin building 5G networks by 2019, and are not encumbered by a lack of spectrum.²⁰⁰ Mr. Neville Ray, Executive Vice President and Chief Technology Officer of T-Mobile, sponsored the county coverage maps and was cross-examined about them. He was asked to compare the county maps of 5G coverage plans for the Joint Applicants for Fresno and Los Angeles, which revealed T-Mobile's financial business decisions about how and when to deploy spectrum are the driving force behind deployment, and that Sprint and T-Mobile are not in danger of "running out" of spectrum to provide 5G.

For example, the county map for Fresno shows that T-Mobile has 70 Mhz of spectrum in the mid-band range.²⁰¹ The county map for Los Angeles shows that T-Mobile has the same amount of spectrum in Los Angeles (70 Mhz).²⁰² By 2021 the maps show that T-Mobile is able to cover 90 percent of Los Angeles county population using its 70 Mhz of mid-band spectrum to provide 5G.²⁰³ Yet, in Fresno County, T-Mobile will cover zero percent of the population by 2021 with its 70 Mhz of mid-band spectrum.²⁰⁴ How can this be so, if T-Mobile has the exact same amount of mid-band spectrum in both Fresno and Los Angeles, and Los Angeles has 10 million people and Fresno only 1 million? Mr. Ray answered that it is a business prioritization to focus on Los Angeles. He stated: "It's just the case how, you know, we prioritize the work in those early years. The first three years here is, you know, building this highly capable 5G network. So LA is obviously a key market in the US."²⁰⁵

Nor is the situation any different for very rural counties that have small populations and rough terrain. Mr. Ray was shown the coverage map for Alpine County,

¹⁹⁹ Ray, Attachment D.

²⁰⁰ *Ibid.*

²⁰¹ 447: 16-24.

²⁰² 447: 25-28

²⁰³ 427: 2-7.

²⁰⁴ 402: 8-15.

²⁰⁵ 448:6-10.

which is rural and sparsely populated. In Alpine County, T-Mobile has 60 Mhz of mid-band spectrum available.²⁰⁶ Mr. Ray stated that the coverage maps for Alpine show that “mid-band deployments are very, very scarce in Alpine County.”²⁰⁷ He was asked whether spectrum is lacking in Alpine County. He responded “It’s not. You’re up against the tough economics of... I don't know this county, and I don't know the topography. Looking at the map and what the coverage is, I would assume that there are material terrain difficulties and major unpopulated areas across this county.”²⁰⁸ He went on to say “yes, there may be spectrum available, but the sheer pure economics of deploying mid-band in these types of environments, even low-band, looks to be, you know, challenging across this geography.”²⁰⁹ In other words, lack of spectrum has no relation to 5G network deployment in rural counties – the T-Mobile standalone company has plenty of spectrum.

Here is another example. T-Mobile’s and Sprint’s total spectrum holdings in Mono County are 138 and 131.5 mHz, respectively, while the companies’ total spectrum in Los Angeles County are 128 and 131.5 mHz.²¹⁰ Yet the population of Mono County is less than 1% of that for Los Angeles. The table below shows that for these selected rural counties, T-Mobile has sufficient mid-band spectrum.²¹¹

²⁰⁶ 462: 18-23.

²⁰⁷ 463:2-4.

²⁰⁸ 463:8-14.

²⁰⁹ 463:26-28 and 464:1-3.

²¹⁰ Selwyn at 160.

²¹¹ Selwyn at 159.

TABLE 16							
CARRIER SPECTRUM HOLDINGS IN SELECTED CALIFORNIA COUNTIES							
County	Los Angeles	Riverside	San Bernardino	Lake	Mono	Sutter	Sierra
Population	10,163,507	2,423,266	2,157,404	64,246	14,168	96,648	2,999
LOW-BAND HOLDINGS (MHZ)							
Verizon	82	82	82	82	82	82	82
AT&T	80	80	80	18	74	74	74
T-Mobile	38	38	38	48	48	48	48
Sprint	10	10	10	10	10	0	10
MID-BAND HOLDINGS (MHZ)							
Verizon	180	180	180	200	150	180	180
AT&T	180	180	180	150	160	150	160
T-Mobile	110	110	110	150	120	110	120
Sprint	121.5	121.5	121.5	127	121.5	82	82
Source: FCC Universal Licensing System (ULS); Joint Applicants' Appendix L-1 rev. 7/5/18							

Here is a final example. Mr. Ray stated that T-Mobile maintains “70 megahertz of mid-band spectrum in L.A. The map is showing in 2021 that 5G has started being deployed in that mid-band layer.”²¹² However, T-Mobile in Los Angeles County is not using 70 Mhz of spectrum to cover 90 percent of the population. In fact, Mr. Ray stated that LA is being covered with “10 megahertz, not 70 megahertz. Nowhere does it say that 70 megahertz is deployed in 5G. Now, when you look to 2024, you can start to see the lion's share of the spectrum has been deployed to 5G. But even by 2024... not all of it.”²¹³ If by 2021 T-Mobile is able to cover 90% of the population of LA County with 10 Mhz of mid-band spectrum, that means it can cover about 9 million people with only 10 Mhz, and it will be years before it runs into its 70 Mhz limit for mid-band spectrum. As discussed above, T-Mobile has 70 Mhz of spectrum in Fresno, and 60 Mhz of spectrum in Alpine. The table above shows similar amounts for other rural counties. Clearly, even in large metropolitan areas like LA, lack of spectrum is not a pressing issue in the near

²¹² 456: 24-27.

future. The idea that Sprint and T-Mobile need to merge in order to have the capacity needed to serve rural areas cannot withstand scrutiny.

4. Rural Deployment Will Depend on Capital Investment, Not New Spectrum

As discussed above, T-Mobile already has adequate spectrum to serve rural areas.²¹⁴ T-Mobile claims it needs to acquire Sprint's mid- and high-band spectrum, which requires cell towers that have smaller footprints and are better suited for urban areas.²¹⁵ Yet, Joint Applicants claim that New T-Mobile will rely on this spectrum to provide coverage in rural areas, which does not make financial sense.²¹⁶

Covering rural areas with mid-band spectrum will require significant capital build-outs of more cell sites.²¹⁷ Most new technologies enabling 5G service such as mMIMO and beamforming are infrastructure-related antenna technologies, and will require further investment to upgrade existing antennas and radios.²¹⁸ These benefits are not directly enabled by more spectrum.

Moreover, New T-Mobile plans to eliminate many of Sprint's current and future cell sites, which means that the proposed merger will significantly reduce cell site infrastructure and redundancy in all of California, offering no concrete benefits to rural areas.²¹⁹ The proposed merger will result in a net loss of cell sites because T-Mobile has stated that it will decommission many cell sites and also discontinue Sprint's plans to construct new cell sites.²²⁰

(continued from previous page)

²¹³ 457: 2-7. Emphasis added.

²¹⁴ Reed 5G at 17. Only T-Mobile claims to need additional spectrum; Sprint has never made any such claim.

²¹⁵ Ray at 13.

²¹⁶ Reed 5G at 17.

²¹⁷ *Ibid.*

²¹⁸ *Ibid.*

²¹⁹ Supplemental Declaration of Cameron Reed at 5.

²²⁰ *Ibid.*

Rural areas with low population densities do not need as much capacity as dense, urban areas.²²¹ There, carriers need less available spectrum to provide 5G service. The proposed merger will lead to portions of spectrum being unused in rural areas. Stand-alone T-Mobile already has the spectrum resources to provide high speed 5G services to rural areas, and it can also replace and upgrade its existing 600 MHz radios to provide 5G service as demand grows in rural areas.²²²

a) In Home Broadband Is Not Merger Specific

Joint Applicants claim that in-home broadband is a resulting benefit of the merger.²²³ In-Home broadband is poorly defined by the Joint Applicants, but basically it is a technology that will allow households to access the wireless network at broadband speeds. However, as discussed above, the Commission should not rely on vague promises of unverifiable benefits if it approves the proposed merger. Joint Applicants' In-Home broadband proposal is not well defined, and the Application includes no material plans to implement this service, how it would be marketed, or what quality of service could be provided to customers.²²⁴

Furthermore, the in-home broadband offering is a service enabled by the significant advances in capacity, coverage, and throughput derived from 5G.²²⁵ Small cell deployments required for high band capacity and mMIMO will enable speeds of 100 Mbps or more, which is comparable to existing wireline services.²²⁶ The stand-alone deployments of T-Mobile and Sprint 5G services are projected to meet or exceed the expected 5G average speeds by 2024, which would enable the stand-alone companies to provide in-home broadband without the proposed merger.

²²¹ *Ibid.*

²²² *Ibid.*

²²³ Application at p. 4.

²²⁴ Reed 5G at 18.

²²⁵ *Ibid.*

²²⁶ *Ibid.*

C. Sprint Does Not Need To Merge With T-Mobile To Remain Financially Viable

Joint Applicants have strongly suggested that going forward, Sprint will not be a financially viable company.²²⁷ Joint Applicants have stated that Sprint faces “a number of constraints,” such as insufficient spectrum and a lack of “sufficient financial resources,” to rollout a 5G network in California.²²⁸ In recent public statements, Sprint has suggested that it is in financial trouble and may face “restructuring.”²²⁹ Joint Applicants further state that Sprint has “lost market share” which has a negative impact on Sprint’s “competitive strength.”²³⁰ They claim that “scale disadvantages compared to larger competitors” has been exacerbated by this “dwindling” customer base.²³¹ Finally, they blame a lack of financial resources for “poor perceived network performance” which has led to high customer “churn.”²³² There can be no doubt that Joint Applicants wish to portray Sprint as a failing company that needs this merger in order to remain solvent.

However, Sprint is not a failing company. The Public Advocates Office’s analysis shows that Sprint’s current financial condition is good – it is liquid, solvent, profitable, and has good cash flow.

While Sprint had a few difficult years, since 2017 it has been profitable and appears to be continuing in that direction.²³³ Sprint’s recent successes and solid financial footing will allow the company to invest in its network, improve service quality, and roll out 5G technology in California.²³⁴ In 2014 Sprint appointed a new Chief Executive Officer, Marcelo Claure, who began concentrated efforts to improve the company’s

²²⁷ Testimony of Adam Clark (Clark) at 7.

²²⁸ Application at 28.

²²⁹ <https://www.foxbusiness.com/technology/sprint-in-attempt-to-salvage-t-mobile-deal-argues-company-future-at-stake>

²³⁰ *Ibid.*

²³¹ *Ibid.*

²³² *Ibid.*

²³³ Clark at 7.

²³⁴ *Ibid.*

performance.²³⁵ For three consecutive years, Sprint's bottom line financial condition has improved; in 2017, Sprint made a profit of **Begin Confidential >> [REDACTED]**. << **End Confidential**²³⁶

1. Sprint's Public Statements Indicate that Its Current Financial Condition is Good

Sprint's current financial condition is good. Not only is that the opinion of the Public Advocates Office, but it is the opinion of Sprint itself.

Sprint's Chief Financial Officer (CFO) Andrew Mark Davies last October confirmed Sprint's financial health while addressing the company's second quarter results for the current fiscal year 2018:

"We continued to have strong liquidity with over \$11 billion of general-purpose availability including nearly \$9 billion of cash, cash equivalents and short-term investments as we've pre-funded a significant portion of our capital investments and debt maturities for this fiscal year."²³⁷ And,

"[Sprint's] net cash provided by operating activities of \$2.9 billion improved by \$125 million year-over-year while adjusted free cash flow, which had been positive for six of the last seven quarters, was \$525 million in the quarter and improved by over \$100 million year-on-year even with the significant increase in network cash CapEx."²³⁸

Sprint Chief Executive Officer, Marcelo Claure, recently stated:

"[Sprint's] fiscal 2017 results demonstrate... another milestone in our five-year turnaround plan. We delivered customer growth. We delivered profitability and improved network performance and we've done all of those at the same time. We've delivered the highest retail

²³⁵ *Ibid.*

²³⁶ *Id.* at 8.

²³⁷ Clark at 11. *Sprint's Second Quarter 2018 Results Earnings Call*. October 31, 2018.

²³⁸ Clark at 24. *Sprint's Second Quarter 2018 Results Earnings Call*. October 31, 2018.

phone net adds in five years. We continue to grow our postpaid customer business and prepaid customer base. We have improved profitability. We've delivered net income for the first time in 11 years. We have our highest operating income in company's history and we have our highest adjusted EBITDA in 11 years.”²³⁹

Mr. Davies has further stated: “This last quarter we returned to wireless service revenue growth year-on-year. We expect that level of wireless service revenue growth to continue for the foreseeable future. So there's a revenue growth story.”²⁴⁰

Sprint’s recent improvements to its financial condition are significant and on par with T-Mobile, AT&T and Verizon in 2017.²⁴¹ Sprint’s year-over-year improvement and 2017 cumulative financial condition indicate that the company is financially stable and can continue to compete in California’s mobile wireless telecommunications market.²⁴²

Sprint increased its expectation for adjusted EBITDA in the current fiscal year 2018 to a range of \$12.4 billion to \$12.7 billion.²⁴³ Sprint also increased its expectation for cash capital expenditures (excluding leased devices) to a range of \$5 billion to \$5.5 billion for the current fiscal year 2018.²⁴⁴ Sprint’s own newsletter touts numerous recent financial successes:²⁴⁵

- Growing wireless service revenue year-over-year for the first time in nearly five years;
- A fourth consecutive quarter of net income (\$196 million);

²³⁹ Clark at 28. *Sprint Corporation 4Q17 Earnings Conference Call*. May 2, 2018.

²⁴⁰ Clark at footnote 25. *Bank of America Merrill Lynch Leveraged Finance Conference* (December 5, 2018)

²⁴¹ Clark at 27.

²⁴² *Ibid.*

²⁴³ *Ibid.*

²⁴⁴ *Ibid.*

²⁴⁵ Clark at 27. “Sprint Reports Year-over-year Growth in Wireless Service Revenue with Fiscal Year 2018 Second Quarter Results.” *Sprint News Release*. October 31, 2018. Available at, http://s21.q4cdn.com/487940486/files/doc_financials/quarterly/2018/Q2/01_Fiscal-2Q18-Earnings-Release-FINAL.PDF.

- An 11th consecutive quarter of operating income (\$778 million);
- Net cash provided by operating activities of \$2.9 billion;
- An adjusted free cash flow of \$525 million; and,
- Positive adjusted free cash flow in six of the last seven quarters.

In no uncertain terms, Mr. Brandon Dow Draper, Chief Commercial Officer for Sprint and Joint Applicants’ witness regarding Sprint’s financial condition, stated that Sprint is not going bankrupt, is not a failing company, and will continue to be a competitor whether the merger happens or not. Essentially, his testimony corroborated the Public Advocates Office’s analysis and testimony that Sprint is not a failing company.

On cross-examination, Mr. Draper stated:

- **“Sprint will be here to compete whether we merge with T-Mobile or not.”** [emphasis added]²⁴⁶
- “It is **not** my testimony today that Sprint is failing company.” [emphasis added]²⁴⁷
- “...we are a stable company. Sprint is not going bankrupt. We are not a failing firm.”²⁴⁸
- “...Sprint has not considered bankruptcy. We do not intend to. As far as I know, we have no plans of declaring bankruptcy. Sprint is not at risk of becoming bankrupt.”²⁴⁹
- “We've got tremendous amounts of debt. That doesn't mean we can't continue to borrow to invest in our network. That is the current stated plan.”²⁵⁰
- “Sprint will be able to borrow money. Again, my testimony is not that Sprint is going bankrupt, it is not able to borrow more money, not able to remain a competitor. This -- specifically what we are talking about here [referring to spectrum backed notes] is

²⁴⁶ 659: 17-18.

²⁴⁷ 634: 14-15.

²⁴⁸ 635:

²⁴⁹ 651: 17-21

²⁵⁰ 633: 10-13

there is a certain amount of borrowing we will be able to do against our spectrum.”²⁵¹

2. The Public Advocates Office’s Examination of Sprint’s Financial Condition Demonstrates That It Is In Good Condition

Net income and borrowing are only two aspects of Sprint’s financial condition – the Public Advocates Office also examined Sprint’s liquidity, solvency, profitability, and cash flow. With regards to Sprint’s financial condition if the proposed merger is not approved, Mr. Clark’s testimony demonstrates that:

- Sprint has sufficient liquidity to meet near term financial obligations.²⁵²
- Sprint is financially solvent and not facing bankruptcy.²⁵³
- Even without the 2018 federal Tax Cut and Jobs Act,²⁵⁴ Sprint posted net income in 2017 of approximately \$303 million, proving that it is a profitable company without the proposed merger.²⁵⁵
- From Sprint’s positive operating, finance, and investment activities it has increased its cash flow demonstrating good financial condition and viability.²⁵⁶

When combining these factors into a single metric, the Public Advocates Office’s testimony demonstrates that Sprint is financially viable as a standalone company.²⁵⁷

²⁵¹ 649: 18-25

²⁵² Clark at 9.

²⁵³ Clark at 17.

²⁵⁴ Clark at 20. The 2018 tax rate change created a \$7.1 billion non-cash benefit for Sprint. But even without the effects of the tax rate change, Sprint still posted net income in 2017 of approximately \$303 million, its first annual profits in eleven years. Sprint’s transformation initiatives and network improvements allowed the company to reduce its network costs, including labor and backhaul expenses, in 2017, showing a major improvement from 2016 and 2015, even accounting for the tax change.

²⁵⁵ Clark at 20.

²⁵⁶ Clark at 21.

²⁵⁷ Clark at 26-27.

V. IF THE PROPOSED MERGER IS APPROVED, THE COMMISSION SHOULD CONSIDER CREATING CONDITIONS TO IMPOSE ON THE MERGER

As stated above, the Commission should deny the proposed merger. If the Commission fails to deny the proposed merger despite the harms to competition and the corresponding harms to Californians, it should develop and adopt performance-based mitigating measures that are specific, measurable, enforceable, and easily monitored on an on-going basis to ensure compliance. It should be emphasized that these measures would not fully mitigate the risks to California of the proposed merger and, even if adopted, the risks would still outweigh the benefits. In order to have some level of partial mitigation, the Commission should create and adopt measurable, verifiable, enforceable, and easily monitored performance-based mitigating measures in the following areas:

- a) Requiring that the Joint Applicants' adhere to its commitments made related to prepaid pricing, in order to mitigate harm to low-income consumers.
- b) Requiring that New T-Mobile honor all existing wholesale agreements and commit to offering existing wholesale partners the best wholesale terms and conditions that are offered individually by each of the Joint Applicants to their wholesale partners on a non-discriminatory basis.
- c) Requiring that New T-Mobile continue and expand participation in the LifeLine program indefinitely, at terms equal to or better than the terms currently offered by Assurance by Virgin Mobile.
- d) Requiring that New T-Mobile adhere to its commitments to offer in-home broadband services and to expand and improve service in rural California.²⁵⁸
- e) Requiring that New T-Mobile adhere to its commitments to provide wireless speeds in excess of 100 Megabits per second by 2021 and 400 Megabits per second by 2024.²⁵⁹
- f) Requiring that New T-Mobile retain Sprint's customer complaint database, portable generator inventory, and back-up battery policy to help maintain quality of service.

²⁵⁸ Application at 4.

²⁵⁹ Id at 15.

- g) Requiring that New T-Mobile report on customer complaints, service outages, broadband speeds and latency following the merger.
- h) Requiring that New T-Mobile work closely and collaboratively with the California Office of Emergency Services (CalOES) to implement wireless Next Generation 9-1-1 services across its service territory and notify the Commission, CalOES and the Public Advocates Office of 9-1-1 outages.
- i) Requiring that New T-Mobile construct a dedicated first responder communications network to mitigate the harms of reduced redundancy in cellular infrastructure.
- j) Requiring that New T-Mobile complete the California-specific capital investments that the Joint Applicants claim the merger will produce.
- k) Requiring that New T-Mobile submit annual reports on its capital investments in California and include detailed information.
- l) Requiring that New T-Mobile create an inventory of all third-party suppliers and subcontractors who have or will have access to New T-Mobile customer data. New T-Mobile should use this inventory to conduct regular, periodic reviews of suppliers' and subcontractors' data security and risk management policies and programs. New T-Mobile should require that third parties notify and receive approval from New T-Mobile when providing subcontractors access to customer data.
- m) Requiring that New T-Mobile ensure that third party risk management is a company-wide priority. New T-Mobile should ensure the Board of Directors and other senior leadership receive periodic updates from staff about the status of the company's third-party risk management programs. New T-Mobile should require staff to report to the board and senior leadership whenever a data breach occurs. The Commission and the Public Advocates Office should be notified when a breach occurs, with subsequent notification of the root cause analysis and remediation actions.
- n) Requiring that New T-Mobile should require third parties to notify New T-Mobile staff within 24 hours of a data breach or suspected breach, whether the breach originates with the third party or their subcontractor. Supplier contracts should clearly state how suppliers must notify New T-Mobile in the event of a

data breach and should require suppliers provide periodic reports and updates describing the breach investigation and all corrective or remedial actions taken.

- o) Requiring that New T-Mobile allow customers to identify devices that belong to children and establish a program that would give primary account holders increased control over the data generated by devices that belong to children. This increased control should include the ability for the primary account holder to control what data are collected and to have New T-Mobile delete the data that are collected. In addition, New T-Mobile should not collect or store any information from these devices, beyond what is necessary to provide service. New T-Mobile should also not use the data, even if the data are de-identified, for any purpose other than providing service to that device. New T-Mobile should automatically preclude children's devices from inclusion in any interest-based advertising program, even if other types of customers must "opt-out."
- p) Requiring that New T-Mobile employ an independent consultant to conduct a customer satisfaction survey on their respective company's data privacy policies including customer notice and understanding of those privacy standards, customer ability and accessibility to opt-in/opt-out of carriers' data collection, and customer notification and recourse when data are compromised or breached. The independent consultant should work with the Public Advocates Office and other consumer groups that are parties in this proceeding on the survey methodology and design, and it should share the results of the survey with them and the Commission.
- q) Requiring that New T-Mobile delete all mandatory arbitration/class action waiver provisions from the post-merger New T-Mobile's customer service adherence contracts, both for new as well as for pre-existing customers.

VI. CONCLUSION

The Public Advocates Office has determined that the proposed merger is decidedly NOT in the public interest. The proposed merger will lead to higher prices, reduced capital expenditures in California, stifled innovation, poorer service quality, reduced rural coverage, elimination of low-income plans (like LifeLine), and deteriorated consumer

privacy. The supposed benefits touted by the Joint Applicants are either too vague or not merger-specific; for example, both standalone companies will create an excellent 5G network without the merger, and promises of alleged “synergies” and cost savings that allegedly will be passed along to consumers are vague and unforceable. The public reasons behind the proposed merger, i.e., that the proposed merger will bring about a 5G network and save Sprint from certain bankruptcy, have been shown to be false. Consumers in California will benefit from a 5G network without the merger, and standalone Sprint is a healthy competitor for the foreseeable future. Consumers in California will benefit far more from the continued existence of 4 competitors in the wireless market rather than just 3. For the reasons stated herein, the Public Advocates Office respectfully requests that the Commission deny the proposed merger.

Respectfully submitted,

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