

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Ensuring Customer Premises Equipment Backup Power for Continuity of Communications)	PS Docket No. 14-174
)	
Technology Transitions)	GN Docket No. 13-5
)	
Policies and Rules Governing Retirement of Copper Loops by Incumbent Local Exchange Carriers)	RM-11358
)	
Special Access for Price Cap Local Exchange Carriers)	WC Docket No. 05-25
)	
AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services)	RM-10593
)	
To: The Commission)	

REPLY COMMENTS OF HUGHES NETWORK SYSTEMS, LLC

I. INTRODUCTION

In these comments, Hughes Network Systems, LLC (Hughes) hereby provides reply comments in response to the Federal Communication Commission’s (“FCC” or “Commission”) Notice of Proposed Rulemaking in Ensuring Customer Premises Equipment Backup Power for Continuity of Communications Technology Transitions.¹ Hughes supports the FCC’s efforts to ensure reliable back-up power for consumers of IP-based voice and data services across networks that provide residential fixed service that substitutes for and improves upon the kind of

¹ *Ensuring Customer Premises Equipment Backup Power for Continuity of Communications, et al.*, Notice of Proposed Rulemaking and Declaratory Ruling, 29 FCC Rcd 14968 (2014) (“NPRM”).

traditional telephony used by people to dial 911 and ensure consumers are informed about their choices and the services available to them. As the largest satellite broadband provider in North America, Hughes services are often relied upon by U.S. consumers who live in the most remote areas of the country as well when terrestrial infrastructure is unavailable due to natural or other disasters. As discussed herein, Hughes urges the FCC to utilize the Communications Security, Reliability and Interoperability Council's ("CSRIC") best practices, with some changes to account for satellite technology, to ensure the FCC's goals are best achieved. Best practices, as demonstrated by the record in this proceeding and real-life experience, will ensure that the FCC's very important goals in this proceeding are met on a cost-effective and timely basis.

II. BACKGROUND

Hughes, a wholly-owned subsidiary of EchoStar Corporation, is North America's largest provider of satellite broadband services with approximately 1,000,000 customers.² Today, Hughes operates two advanced broadband satellites that provide service throughout the United States and next year plans to launch a third satellite, EchoStar XIX (Jupiter 2), that will provide even greater broadband capacity to U.S. consumers than exists today. U.S. consumers utilize the Hughes satellite broadband services for a number of important communications services including high-speed internet and voice over internet protocol ("VoIP").³ Hughes manufactures the devices for its HughesNet broadband services, but also is a manufacturer of satellite terminals for other providers of advanced communications services in the United States, including Inmarsat's BGAN services. Accordingly, Hughes is uniquely positioned to comment on the issues in this proceeding as both a service provider and equipment manufacturer.

² Press Release, Hughes Network Systems, LLC, Hughes Becomes First Satellite Internet Provider to Surpass One Million Active Users (Sept. 8, 2014).

³ See HughesNet Voice, <http://gen4.hughesnet.com/promo/voice> (last visited Mar. 9, 2015), HughesNet, <http://www.hughesnet.com/> (last visited Mar. 9, 2015).

III. DISCUSSION: THE FCC SHOULD UTILIZE CSRIC BEST PRACTICES TO BEST ACHIEVE ITS GOALS OF NETWORK RELIABILITY FOR 911 SERVICES

Hughes agrees with the FCC that because the customer premises equipment (“CPE”) used for IP-based services generally requires a backup power source such as batteries in the event of a power outage, it is important that consumers have a means to ensure continuity of communications throughout a power outage, including, most importantly, continued access to emergency services.⁴ Although unlike many of the networks discussed herein, Hughes satellite services are not necessarily seen as a replacement to copper based service, Hughes still supports the FCC’s goals to avoid consumer confusion by enabling a baseline for continuity of power for devices that support 911 services, including 911 over VoIP and providing emergency alerts and associated services.⁵

However, Hughes urges the FCC in evaluating how to best accomplish goals to take into account that the technologies it is examining are fairly diverse – from satellite to fiber based services. Accordingly, finding a uniform baseline is fairly complex. For example satellite terminals, such as those that Hughes utilizes for its broadband services, require more power than electronics using alkaline batteries, due to the satellite terminal having to supply power for transmitting to and receiving from a satellite. The Uninterrupted Power Supply (“UPS”) device that would be needed to provide eight (8) hours of standby power (in the range of 3000 VAh (volt-ampere-hours)) would cost several hundred dollars, adding significant cost to user terminals for satellite broadband services. In addition, unlike other technologies, satellite technology is mounted outside the premises and requires power to transmit and receive data over the satellite link and data must be sent periodically over the satellite link to establish and

⁴ NPRM, 29 FCC Rcd. at 14970 ¶ 4.

⁵ NPRM, 29 FCC Rcd. at 14986-88 ¶¶ 32-34.

maintain network timing. Because of the uniqueness of each technology, a one-size approach would not fit all technologies. Accordingly, the FCC should avoid the adoption of stringent regulatory requirements and instead focus its efforts on encouraging the adoption of best practices, such as those adopted by CSRIC.

As the record shows, the recently adopted CSRIC best practices for advancing state of the art in CPE powering (“CSRIC Best Practices”) are particularly well-suited to achieve these goals.⁶ Accordingly, the FCC should encourage service providers to commit to the best practices that are most appropriate for their technology. For satellite broadband, Hughes recommends that satellite broadband providers agree to the following best practices: New 01, 02, 06, 11, 13, 16, 18 and 20, as these are most appropriate for this technology and will meet the FCC’s goals.⁷

With regard to consumer information, as AT&T and others note in their comments, IP-based voice service providers generally do not assume responsibility for monitoring their customers’ backup batteries nor are they particularly well-positioned to do so.⁸ As such, Hughes supports the comments of AT&T and the National Cable & Telecommunications Association that call on the FCC to focus on educating consumers regarding the need for backup power to

⁶ See PS Dkt No. 14-174, *et al.*, Comments of AT&T Services, Inc. at 13 (filed Feb. 5, 2015) (“AT&T Comments”), PS Dkt No. 14-174, *et al.*, Comments of CenturyLink at 46-49 (filed Feb. 5, 2015), and PS Dkt No. 14-174, *et al.*, Comments of American Cable Association at 12 (filed Feb. 15, 2015).

⁷ See CSRIC IV Working Group 10B, CPE Powering – Best Practices; Final Report – CPE Powering, 20-23 (September 2014).

⁸ See AT&T Comments at 9 (“[P]roviders rely on their customers to monitor the backup battery by educating customers on the necessity of a backup battery during a power outage and providing important information about the backup battery, including how to prolong battery life during power outages, how to determine when a battery needs replacing, how to physically replace the battery, and where to obtain replacements. Relying on customers, rather, than service providers, to monitor and maintain battery backup power for CPE makes eminent sense given technological and marketplace changes.”), PS Dkt No. 14-174, *et al.*, Comments of Cincinnati Bell Telephone Company LLC at 9-10 (filed Feb. 5, 2015), and PS Dkt No. 14-174, *et al.*, Comments of Verizon at 19 (filed Feb. 5, 2015).

maintain continuity of service during power outages, their options for monitoring and maintaining backup power for the services consumers select, and how to prolong battery life during power outages.⁹ Hughes agrees that the FCC should continue to allow consumers to choose their communications services and the size, cost, and type of backup-power systems, if any, that best meet their needs.¹⁰

IV. CONCLUSION

Based on the foregoing, Hughes urges the FCC to encourage service providers to commit to the CSRIC Best Practices to ensure that U.S consumers have available to them the technology and information needed to provide the required power they need for continuity of 911 and other emergency services. Because of the differences in technology, a one-sized regulatory approach would likely fail. Providing service providers with the flexibility they need and consumers with required information will best serve the public interest and achieve the FCC's important goals in this proceeding.

Respectfully submitted,

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⁹ See AT&T Comments at 9, 13, and PS Dkt No. 14-174, *et al.*, Comments of the National Cable & Telecommunications Association at 9-10 (filed Feb. 5, 2015) (“NCTA Comments”).

¹⁰ See NCTA Comments at 5, PS Dkt No. 14-174, *et al.*, Comments of Fiber to the Home Council at 17 (filed Feb. 5, 2015), AT&T Comments at 13.