

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)	
)	
Promoting Spectrum Access for Wireless Microphone Operations)	GN Docket No. 14-166
)	
Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions)	GN Docket No. 12-268
)	

To: The Commission

COMMENTS OF XCEL ENERGY SERVICES INC.

Xcel Energy Services Inc., on behalf of its public utility operating company affiliates, Northern States Power Company – Minnesota, Northern States Power Company – Wisconsin, Public Service Company of Colorado, and Southwestern Public Service Company (collectively, “Xcel Energy”) hereby submits its comments in response to the Commission’s *Notice of Proposed Rulemaking* (“*NPRM*”) in the above-captioned proceeding.¹

Xcel Energy, an electric and natural gas company based in Minneapolis, Minnesota, provides a comprehensive portfolio of energy-related products and services to 3.4 million electricity customers and 1.9 million natural gas customers in eight states – Minnesota, North Dakota, South Dakota, Wisconsin, Michigan, Colorado, Texas, and New Mexico.

¹ / *Promoting Spectrum Access for Wireless Microphone Operations*, GN Docket No. 14-166, *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Notice of Proposed Rulemaking, 29 FCC Rcd 12343 (2014) (“*NPRM*”). On December 10, 2014, the FCC granted an extension of the comment deadline and reply comment deadlines until February 4, 2015, and February 25, 2015, respectively. Order, FCC 14-1801 (rel. Dec. 10, 2014).

The FCC has proposed making unused portions of the 941-944 MHz and the 952-960 MHz bands available for licensed low power auxiliary stations (“LPAS”) on a secondary basis under the same technical rules that currently apply to such operations in the 944-952 MHz band.²

As discussed by the FCC, a majority of the 941-944 MHz band between 941.5-944 MHz has been licensed for Private Operational Fixed Point-to-Point Microwave Services, which includes business industrial microwave and site-based Multiple Address Service (“MAS”) services. The other portion of this band between 941-941.5 MHz is authorized for MAS operations on a paired basis with spectrum in the 932-932.5 MHz band. This spectrum has historically been used by the power, petroleum, and security industries for various alarm, control, interrogation and status reporting requirements. Similarly, most of the 952-960 MHz band is licensed for Private Operational Fixed Microwave Service, with the remaining portions – commonly known as the 928/952/956 and 928/959 MHz bands – licensed for MAS operations.

Xcel Energy has invested significantly in its 900 MHz networks to support its critical utility operations. In the 941-944 MHz band, Xcel Energy holds several licenses for Private Operational Fixed Point-to-Point Microwave Services between 941.5 MHz and 944 MHz, as well as site-based MAS operations between 941.0 MHz and 941.5 MHz (paired with 932.0-932.5 MHz). In the 952-960 MHz band, Xcel Energy is licensed for Private Operational Fixed Point-to-Point Microwave Services from 952.95-956.15 MHz and 956.55-959.75 MHz and is licensed extensively in the 928/929/956 MHz band for MAS operations.

As a provider of essential electric utility service to the public, Xcel is obligated to both its employees and customers to keep its utility system running as smoothly, reliably, and safely as possible. It must be able to consistently monitor, maintain, and repair its facilities, including immediately pinpointing the source of emergencies such as power outages. To conduct those

² *NPRM* at ¶¶ 142-56.

activities effectively and efficiently, Xcel Energy's utility operating companies have licensed and implemented a wireless telecommunications monitoring and control system that is dependent on MAS systems. Xcel Energy makes extensive use of its licensed 900 MHz MAS frequencies to provide supervisory control and data acquisition ("SCADA") services in support of its electric generation, transmission, and distribution operations to ensure the safe, efficient, and reliable delivery of electric utility service to the public.

Xcel Energy's SCADA system enables it to monitor transmission and distribution operations in real time and to operate more efficiently by collecting and transmitting data between remote facilities and headquarters. As such, Xcel Energy can quickly identify problems and take steps to prevent or contain outages, efficiently manage load levels, and ensure the safety of the public.

Therefore, because of the critical nature of Xcel Energy's operations on its 900 MHz frequencies and the potential for interference from wireless microphone operations, Xcel Energy strongly urges the Commission not to permit LPAS operations in the 941-944 MHz and the 952-960 MHz bands. Xcel Energy does not believe that wireless microphones can co-exist with licensed incumbent utilities in these bands without causing harmful interference to critical utility operations.

To the extent the Commission authorizes wireless microphone operations in the 941-944 MHz and 952-960 MHz bands, Xcel Energy urges the Commission to adopt protections to prevent harmful interference to incumbent utility operations, including both Private Operational Fixed Point-to-Point Microwave Services and MAS operations. Among other things, Xcel Energy supports the concept of minimum separation distances between site-based incumbent operations and wireless microphones and the creation of protection zones around incumbent site-

based operations. Xcel Energy also recommends that the Commission adopt limitations on power levels for wireless microphones and limit wireless microphones to indoor uses on frequencies licensed for SCADA operations.

WHEREFORE, THE PREMISES CONSIDERED, Xcel Energy respectfully requests the Commission to take action in this docket consistent with the views expressed herein.

Respectfully submitted,

XCEL ENERGY SERVICES INC.

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Dated: February 4, 2015