

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Request for Declaratory Ruling by) WTB Docket No. 07-121
Wireless Strategies, Inc. Regarding)
Coordination of Microwave Links)
Under Part 101 of the Commission’s)
Rules)

To: The Commission

**REPLY COMMENTS OF SAN DIEGO GAS & ELECTRIC COMPANY
AND SOUTHERN CALIFORNIA GAS COMPANY**

San Diego Gas & Electric Company (“SDG&E”) and Southern California Gas Company (“SoCalGas”), by their attorneys, respectfully submit these Reply Comments in response to the Federal Communications Commission (“FCC” or “Commission”) Public Notice inviting comment on the Wireless Strategies Inc. (“WSI”) Request for Declaratory Ruling (“WSI Request”).¹ The WSI Request was submitted to the FCC on February 23, 2007, and asked for confirmation that Part 101 of the Commission’s rules permits a licensee to simultaneously coordinate multiple links within a single point-to-point coordination if all transmitters within the envelope collectively comply with the Part 101 antenna standards and frequency coordination procedures.²

The Public Notice explains the several parties opposed the WSI Request, claiming that it could result in substantial interference to existing point-to-point microwave

¹ See *Public Notice*, Wireless Telecommunications Bureau Seeks Comment on Request for Declaratory Ruling by Wireless Strategies, Inc. Regarding Coordination of Microwave Links Under Part 101 of the Commission’s Rules, DA 07-2684 (rel. June 19, 2007) (“Public Notice”).

² Request for Declaratory Ruling filed by Wireless Strategies Inc. (Feb. 23, 2007).

facilities. WSI responded to those objections. The FCC also received comments from several parties in support of the WSI Request. Thereafter, the Commission issued the Public Notice seeking further information with respect to the matters raised in that submission.

I. INTRODUCTION

SDG&E is a natural gas and electric distribution utility located in San Diego, California, that provides service to 3 Million customers. SoCalGas is the nation's largest natural gas distribution utility, serving 18 Million customers from central California to the Mexican border.

SDG&E and SoCalGas are currently licensed for more than one hundred (100) Part 101 microwave links in the 6 GHz, 10 GHz and 18 GHz bands. These entirely private, internal facilities serve as the backbone for SDG&E and SoCalGas' mission critical gas and electric utility operations throughout Southern California. They are vital to assuring maintenance of the highest levels of utility services to the public, as well as supporting critical service restoration in the event of outages or natural disasters. Moreover, they are a key component in providing for the security of the gas and electric infrastructure itself.

Indeed, wireless communications is an absolutely essential ingredient in the ability of SDG&E and SoCalGas to provide broadly available and reliable service to its many millions of consumers, consistent with the rate regulation to which SDG&E and SoCalGas are subject by the California Public Utilities Commission ("CPUC"). Both SoCalGas and SDG&E are subject to scrutiny by the CPUC to ensure that they maximize the value derived from their respective assets for the benefit of the public they serve. For

this reason, SDG&E and SoCalGas have a compelling interest in obtaining the most efficient use of their authorized spectrum, in ensuring that their wireless operations remain free from interference, and also in promoting technologies and spectrum management techniques that hold promise for the more intensive use of these FCC-regulated scarce spectrum resources.

II. WSI REQUEST

The WSI Request seeks confirmation from the FCC of the following: “That a licensee may use antennas having distributed elements to operate links, in addition to the main link, subject to conditions that (1) all radiating elements together conform to the applicable antenna radiation pattern in section 101.115, and (2) all links are successfully coordinated.”³ WSI contends that systems satisfying these two criteria will not cause interference to other licensees as long as the main link has been properly coordinated and will promote the use of spectrum in the transmitter side lobes, spectrum that WSI characterizes as currently wasted.⁴

The parties opposing the WSI Request generally argue that interference will occur if the technical parameters of each path are not specified, made available for review by potentially affected parties and coordinated individually.⁵ They also challenge WSI’s claim that the transmitter side lobe spectrum is not properly utilized.⁶

³ WSI Request at 7-8. At n. 10, WSI confirms that only fixed, not mobile, operation is contemplated in its request.

⁴ *Id.* at 5.

⁵ *See, e.g.*, Comments of Verizon at 9; Comments of the National Spectrum Managers Association (“NSMA”) at 5.

⁶ *See* Verizon at 8; NSMA at 4; Comments of Harris Stratex Networks, Inc. at para. 1.

III. SDG&E AND SOCALGAS POSITION

As providers of critical utility services to the public, services that rely on the proper functioning of a variety of wireless systems, including point-to-point microwave systems such as those at issue in this proceeding, SDG&E and SoCalGas are well aware of the importance of preventing interference to those operations. They would not and do not support approaches that are likely to jeopardize the reliability of their fixed microwave links, or those of other licensees.

Yet SDG&E and SoCalGas are also faced with the increasingly challenging responsibility of identifying spectrum to meet their evolving communications requirements. For example, the CPUC recently approved a \$572 Million Advanced Metering Infrastructure (“AMI”) project. This ambitious initiative will cover more than 2 Million gas and electric meters. In a world that has become increasingly aware of the financial and societal impact of environmental issues, it is anticipated that the AMI project could be a major step toward reducing peak operating loads through demand-side management while simultaneously reducing operating costs associated with metering, costs that are borne by the public. However, implementation of this program will require spectrum for backhauling data to the SDG&E and SoCalGas enterprise data centers. To the extent that approaches like that proposed by WSI hold promise for extending the reach and flexibility of SDG&E and SoCalGas’ existing wireless backbone network, enabling critical connectivity into local neighborhoods and associated metering/monitoring points on a point-to-multipoint basis, SDG&E and SoCalGas urge the Commission and critics of the WSI Request not to rush to judgment.

SDG&E and SoCalGas do not dispute that the current microwave coordination processes have worked well to protect fixed operations in today's telecommunications environment. But it also is clear that technological advances are transforming the wireless world. In SDG&E and SoCalGas' opinion, meeting their own increasingly more demanding public obligations requires them to give serious consideration to technical advances such as "smart" antennas that promise to increase their productivity while reducing their costs. It is not enough to say, as do some WSI opponents, that the approach set out in the WSI Request is unacceptable because it is not how fixed microwave spectrum has been coordinated and utilized in the past. Rather, it is incumbent on the wireless community and the FCC, as steward of this public resource, to explore alternatives that are not "business as usual," but that may permit more intensive use of scarce spectrum for the benefit of the public.

SDG&E and SoCalGas have long been at the forefront of entities deploying advanced, large-scale, complex wired and wireless private networks. Those networks have permitted SDG&E and SoCalGas to monitor and manage their energy assets, support their employees and thereby serve the public. SDG&E and SoCalGas consider the expanded and more flexible use of microwave spectrum at 6 GHz, 10 GHz and 18 GHz as sufficiently critical that they hereby volunteer to participate in technology trials of the approach outlined in the WSI Request using microwave spectrum licensed to SDG&E and SoCalGas, in cooperation with the FCC and other interested parties. Those tests may support the contentions of critics of WSI's proposed approach. Alternatively, they may demonstrate that the WSI approach is viable and warrants further consideration. Whatever the outcome, the stakes simply are too high to reject the concept embodied in

the WSI Request out of hand and without the careful evaluation that potential technological advances demand.

Respectfully submitted,

**SAN DIEGO GAS & ELECTRIC
COMPANY AND SOUTHERN
CALIFORNIA GAS COMPANY**

By: _____ /s/ _____

Elizabeth R. Sachs

Their Counsel

Lukas, Nace, Gutierrez & Sachs, Chartered

1650 Tysons Boulevard, Suite 1500

McLean, VA 22102

(703) 584-8678

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