Description of Application and Public Interest Statement

Pursuant to Section 5.54(a)(1) of the Commission's rules, 47 C.F.R. § 5.54(a), San Diego Gas & Electric Company ("SDG&E") hereby seeks grant of an experimental license to test and evaluate the operational characteristics of private LTE ("PLTE") network operations within the 900 MHz band (the "Experimental License"). SDG&E seeks experimental authority to operate on 900 MHz spectrum from test sites located in Borrego Springs, CA for a period of two years. As explained below, grant of the Experimental License would serve the public interest.

I. Description of Experimental Operations

SDG&E is a regulated utility provider headquartered in San Diego, California. SDG&E provides electric and natural gas service to more than 3.6 million customers across its service territory in Southern California. SDG&E has more than 4,000 employees, is a wholly-owned subsidiary of Sempra Energy, and holds over 200 FCC licenses.

In an effort to continue providing clean, safe, and reliable energy, SDG&E is in the process of modernizing the private communications network its employees utilize to monitor the operations of SDG&E's critical electricity and natural gas distribution infrastructure. This modernization process involves SDG&E deploying PLTE across its service territory to upgrade and expand the operational capabilities of its legacy networks. SDG&E anticipates that its PLTE network could facilitate a host of utility-specific beneficial use cases, including metering, mission critical push to talk communications, Supervisory Control and Data Acquisition (SCADA), renewable energy storage communications, and falling conductor protection. These capabilities will not only assist SDG&E to continue to distribute electricity and natural gas to California rate payers, but also create a more robust and low-latency communications infrastructure—a particularly critical asset during times when SDG&E responds to natural disasters, extreme weather events, and other emergency situations.

As part of its network modernization project, SDG&E successfully obtained spectrum in the Commission's recent auction of Citizens Broadband Radio Service ("CBRS").[1] SDG&E views a multi-spectrum solution as a foundational element of its PLTE deployments. To that end, SDG&E seeks to test and evaluate the operational characteristics and performance of its proposed PLTE operations in the 900 MHz band from certain sites in SDG&E's service territory in advance of more widespread deployments.

Grant of the instant request for the Experimental License for the 900 MHz band would serve the public interest. As noted above, the operational benefits of SDG&E's proposed PLTE operations will facilitate a more resilient and robust private network

[1] Operations under this Experimental License will be similar to those previously authorized by OET to SDG&E. *See*, ELS File No. 0750-EX-ST-2019, Call Sign WO9XKH (granted Jul. 1, 2019).

architecture, which SDG&E relies on to monitor and control its system throughout its large service territory. Moreover, grant of the Experimental License will facilitate field evaluation of critical multi-spectrum wireless capabilities that will assist SDG&E to quickly respond to natural disaster events and emergency situations.

II. Proposed Frequencies and Coordination

SDG&E seeks to conduct testing at the specific frequencies identified in Table 1 below.

SDG&E's proposed operations pursuant to the Experimental License will be undertaken with the prior consent of PDV Spectrum Holding Company, LLC ("PDV Spectrum"), the incumbent license holder of the 900 MHz spectrum on which SDG&E plans to operate.[2] Specifically, SDG&E will operate on the spectrum held under the following PDV Spectrum call signs:

Table 1

Frequencies:	897.5 – 900.5 MHz 936.5 – 939.5 MHz		
Call signs of station:	KNNX675	WPMT737	WPPA341
	KNNX703	WPCS843	WPQD363
	KNNX835	WPCS846	WPRL243
	KNNX304	WPDG834	WPUH948
	KNNX704	WPMU879	WPZZ369
	KNNX307	WPNP203	WQBH646
	WNIQ628	WPNS268	WQCB320
	WPUA397	WPNW459	WQTE372
	WQTH968		

SDG&E emphasizes that its experimental operations will utilize channels primarily included on the call signs (all held by PDV Spectrum) listed in Table 1. Accordingly, SDG&E does not anticipate that any co-frequency operations will experience harmful interference as a result of SDG&E's proposed operations. In the event of any such interference, SDG&E will immediately cease operations pursuant to the Experimental License.

SDG&E specifically requests that due to the topography in the Borrego Springs Valley, notification to incumbent licensees of the testing should be limited to those having sites within 40 kilometers of the station locations. Notification only of testing is

[2] *See* Exhibit B to this application.

appropriate, as no licensee other than SDG&E operates in the test area on the channels to be tested. Consent should not be required of any licensee.

III. Stop Buzzer and Contact Information

The "Stop-Buzzer" contact at SDG&E is the Network Operations Center. They are available 24/7 to cease operations should any reports of harmful interference be received. Their contact information is:

San Diego Gas & Electric Network Operations Center
10975 Technology Place
San Diego, California 92127
netops@semprautilities.com
(858) 613-3200 option 2

For any questions regarding this application, please contact:

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IV. Conclusion

For the reasons stated above, SDG&E respectfully requests the Commission grant the Experimental License providing authority for SDG&E to commence operations on March 15, 2021 for a period of two years in order to facilitate the testing and development of SDG&E's PLTE network infrastructure, which will enhance the safety and resiliency of SDG&E's operations.

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