

## **Nation's First "Smart Grid" White Spaces Network Trial Network Delivers More Efficient, Greener, and Lower Cost Utilities for Residents in Northern California**

*Plumas-Sierra Rural Electric Cooperative & Telecommunications, Google, and Spectrum Bridge Inc.,  
Demonstrate How TV White Spaces Can Be Used for Smart Grid Technologies*

PORTOLA, Calif.--([BUSINESS WIRE](#))--[Spectrum Bridge, Inc.](#), in partnership with [Plumas-Sierra Rural Electric Cooperative & Telecommunications \(PSREC\)](#) and Google (NASDAQ:GOOG), announced today that Plumas-Sierra County, CA has launched the nation's first "Smart Grid" wireless network trial utilizing TV White Spaces spectrum. With its outstanding propagation characteristics, ability to penetrate foliage and non-line of sight connectivity, PSREC chose TV White Spaces to enable "Smart Grid" technologies to investigate more efficient ways to manage its supply-and-demand of electricity, improve System Control and Data Acquisition (SCADA) with PSREC Substations and provide broadband Internet access to underserved areas.

Lori Rice, Chief Operating Officer at PSREC, summarized the results of their experience so far, "Plumas, Lassen and Sierra Counties are located in the Sierra Nevada Mountains and present some very technical challenges with respect to wireless coverage. The ability to use White Space has proven to be an effective option for dealing with difficult terrain and offers another option for wireless connectivity."

TV White Spaces are unused TV broadcast channels made available by the recent transition from Analog to Digital TV. As part of the National Broadband Plan, the FCC has declared that TV White Spaces are well suited for wireless data networks and can be used to deliver cost effective broadband connectivity for a wide variety of consumer, business and government applications.

PSREC currently employs a wide variety of wireless solutions across multiple frequency bands, but still faces challenges in some areas due to challenging terrain. The applications deployed for the Plumas-Sierra "Smart Grid" wireless network trial deliver real-time broadband connectivity to remote substations and switchgear, allowing PSREC System Operators to manage the Electrical system remotely, request critical data from substations, manage power flow and protect the system and employees while maintaining the local grid. The wireless network is also providing broadband access to an underserved community. In addition, PSREC has also deployed [Google's PowerMeter](#) technology, an energy monitoring tool that helps consumers save energy and money using information provided by a smart meter. With the White Spaces network and Google PowerMeter, consumers can view real-time detailed energy consumption data from anywhere, online.

"We are pleased to be working with Spectrum Bridge and Plumas County to give consumers access to their energy information, and are excited to see this innovative use of TV white spaces," said Rick Needham, Director of Green Business Operations at Google. "This project demonstrates the incredible potential of this spectrum to revolutionize not only wireless communications but also rural energy."

To guarantee that the TV White Spaces network does not cause interference with licensed television broadcasts and other protected TV band users, the system operates under the control of Spectrum Bridge's intelligent TV White Spaces database. This database dynamically assigns non-interfering frequencies to white spaces devices, and adapts in real-time to new TV broadcasts, as well as other protected TV band users operating in the area.

“The Plumas-Sierra White Spaces trial is further proof that TV White Spaces is a great tool to extend broadband connectivity to underserved areas and make possible applications like Smart Grid, in ways that couldn’t be done cost-effectively before,” said Jeff Schmidt, Director of Engineering at Spectrum Bridge.

Spectrum Bridge’s database technology underlies the TV White Spaces trial network and allows it to operate efficiently and without causing interference. TV White Spaces availability can be determined for any location in the US by using the free search tool at Spectrum Bridge’s [www.spectrumbridge.com](http://www.spectrumbridge.com) website, or by downloading the free Spectrum Bridge TV White Space application from Smart Phone Application Stores.

#### About Google Inc.:

Google's innovative search technologies connect millions of people around the world with information every day. Founded in 1998 by Stanford Ph.D. students Larry Page and Sergey Brin, Google today is a top Web property in all major global markets. Google's targeted advertising program provides businesses of all sizes with measurable results, while enhancing the overall Web experience for users. Google is headquartered in Silicon Valley with offices throughout the Americas, Europe and Asia. For more information, visit [www.google.com](http://www.google.com).

#### About Plumas Sierra Rural Electric Cooperative & Telecommunications:

Founded in 1937, Plumas-Sierra Rural Electric Cooperative (PSREC) is a member-owned electric distribution utility providing electrical power and related services to over 6,600 member/owners in Plumas, Lassen, and Sierra counties in California and portions of Washoe County in Nevada. PSREC is a true cooperative, controlled by the membership through an elected seven-person board of directors. PSREC’s goal is to provide utility services with a high level of reliability for fair and reasonable costs and dedicated to improving the quality of life of member-owners and local communities.

#### About Spectrum Bridge, Inc.:

Spectrum Bridge, Inc. (SBI) delivers software and services to wireless service providers and equipment manufacturers. SBI enables wireless networks to access and use all types of spectrum at any place or time via a database driven cognitive network architecture. The Company’s products are embedded in subscriber devices and network equipment to more efficiently allocate bandwidth throughout the entire wireless network. SBI’s technology provides customers greater capacity, coverage and utilization of scarce spectrum resources. Named to Fierce Wireless’ “Fierce15” as one of “the most innovative and smart emerging companies in the wireless industry”, the company is privately held and headquartered in Lake Mary, Florida. For more information, contact us at (866) 598-7426 or visit [SpectrumBridge.com](http://SpectrumBridge.com).

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