

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

In the Matter of	)	
	)	
COMMENT SOUGHT ON THE	)	GN Docket Nos.
IMPLEMENTATION OF SMART GRID	)	09-47, 09-51, 09-137
TECHNOLOGY	)	
NBP Public Notice #2	)	
	)	

**Wi-Fi Alliance Comments**

The Wi-Fi Alliance (WFA) hereby respectfully submits comments in the above-captioned proceeding. The Wi-Fi Alliance is a global non-profit industry association of hundreds of leading companies devoted to the proliferation of Wi-Fi technology across devices and market segments. With technology development, market building, and regulatory programs, the Wi-Fi Alliance has enabled widespread adoption of Wi-Fi worldwide.

The Wi-Fi CERTIFIED™ program was launched in March 2000. It provides a widely-recognized designation of interoperability and quality, and it helps to ensure that Wi-Fi enabled products deliver the best user experience. The Wi-Fi Alliance has completed more than 6,000 product certifications to date, encouraging the expanded use of Wi-Fi products and services in new and established markets.

The Wi-Fi Alliance applauds the efforts of the FCC to consider the Smart Grid application under the National Broadband Plan. These efforts to improve communications and control of utility infrastructure can only pay dividends of energy and resource conservation while allowing consumers to access information that will aid in their day to day energy usage

decisions. As evidenced by the breadth of the questions in this first part of the pleading process, this is a complex and multi-layered issue. The Wi-Fi Alliance will look forward to further contributions as the process develops and would like to contribute a recent white paper that we authored for a similar effort by NIST to define Smart Grid technologies and applications. Wi-Fi is a mature technology with strong roots in security, standardization and interoperability. It's internationally deployed in consumer, enterprise and government settings. Please accept our whitepaper as a contribution to define this complex ecosystem.

Additionally, while it's early in the process of considering technologies and applications in this space, the success of Wi-Fi in 2.4 and 5 GHz is a testament of the industry's efforts in efficient and innovative use of spectrum. A preliminary suggestion would be to consider a very similar allocation of spectrum below 1 GHz for Wi-Fi like operation in the Smart Grid ecosystem. The Part 15 rules that govern the 2.4 GHz allocation could be repeated in a spectrum swath that would allow for better propagation and power characteristics than the current 2.4 GHz and 5 GHz models:

- Wi-Fi could be more effectively deployed to gain range and penetration abilities if spectrum were allocated in lower spectrum bands
- Battery operation of remote sensors would have strong longevity advantages with the use of lower spectrum bands for Wi-Fi.

The Wi-Fi Alliance would support a similar allocation and will continue to work with the FCC in the process to define the parameters of operation.

Respectively Submitted,

A handwritten signature in black ink, appearing to read 'Edgar Figueroa', with a long horizontal flourish extending to the right.

Edgar Figueroa

Executive Director  
Wi-Fi Alliance  
3925 West Braker Lane  
Austin, TX 78759  
USA  
+1 512-305-0790 (office)  
+1 512-305-0791 (fax)  
[www.wi-fi.org](http://www.wi-fi.org)