



October 2, 2009

Ms. Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street S.W.
Washington, D.C. 20554

Re: **Comments of the National Association of Broadcasters**

NBP Public Notice #2: Implementation of Smart Grid Technology, GN Dockets Nos. 09-47, 09-51, and 09-137

Dear Ms. Dortch:

The National Association of Broadcasters (“NAB”)¹ submits these comments in response to the Commission’s Public Notice on Implementation of Smart Grid Technology.²

Broadcasters can play a unique and powerful role in helping build a Smart Grid infrastructure. In particular, NAB believes that use of radio broadcasters’ existing FM subcarrier channels by way of the Radio Data System (RDS) protocol can be an excellent and reliable method for communicating data for residential demand management (“load management”) programs.³

At its core, an effective Smart Grid solution will allow electric utilities to quickly

¹ The National Association of Broadcasters is a nonprofit trade association that advocates on behalf of free local radio and television stations and also broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the Courts.

² *Public Notice*, Comment Sought on the Implementation of Smart Grid Technology, NBP Public Notice #2, GN Docket Nos. 09-47, 09-51, 09-137 (released Sept. 4, 2009) (“Notice”).

³ RDS technology has been standardized in the U.S. by the National Radio Systems Committee (NRSC), in the NRSC-4-A United States RBDS Standard. The NRSC is an industry-sponsored standards-setting body jointly sponsored by NAB and the Consumer Electronics Association. See www.nrscstandards.org.

and efficiently communicate with potentially millions of devices to help balance the supply of electricity and moderate severe demand spikes that often tax and overwhelm electricity systems. Smart Grid devices, implanted in home appliances, thermostats, and plug-in hybrid vehicles, could receive data information via an FM data subcarrier channel at anytime, day or night. That data could, for example, tell appliances when to turn off or down or tell thermostats to increase temperatures by a few degrees during peak load times. The resulting decrease in demand could help save billions of dollars each year in energy costs.

In recent months, NAB's Science and Technology team, via NAB's FASTROAD program, have been investigating the use of RDS technology to implement Smart Grid solutions. Our research indicates that the FM subcarrier channel is an excellent potential platform for Smart Grid load management communications. Radio broadcasters in the U.S. have been using RDS technology for more than fifteen years to communicate textual data to radio listeners, most commonly call letters and song or program information, which appears on consumer radio displays. In many cities, RDS technology is used to communicate traffic information to consumer GPS devices.

The RDS data subcarrier's data rate of approximately 1,100 bits per second (including "overhead" protection bits) is well-matched to the requirements of the Smart Grid load management application, while still allowing ample opportunity for other, simultaneous uses. RDS is a proven technology that is compatible not only with an FM station's host analog audio signal but also with the HD Radio digital radio transmissions being implemented by broadcasters throughout the U.S.

NAB understands that other communications platforms are also under consideration to provide Smart Grid load management communications. We believe, however, that RDS provides a number of advantages over other technologies. For example:

- The radio broadcast communication system is already built and provides service to nearly every house and vehicle in America.

- It would not require the allocation of new spectrum.
- The radio broadcast system is robust and stable. It is highly redundant, always on, available, and even in times of emergency, could provide the necessary one-way communication to Smart Grid load management devices.
- It does not create new interference concerns.
- It can be deployed quickly and at minimal cost. FM RDS technology is already used by thousands of radio stations in markets all across the country.

According to recent suggestions by the California Energy Commission (CEC), which is considering RDS technology for use with their revolutionary Programmable Communicating Thermostat system, RDS technology is one of the best available solutions to Smart Grid communication issues. We respectfully request that the Commission follow CEC's lead and consider the strong viability of FM subcarrier channels as a basis for Smart Grid communication.

Respectfully submitted,
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