Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
	)	

To: Office of the Secretary
Attn: The Commission

COMMENTS – TOPIC #10 - ENTREPRENEURIAL ACTIVITY

Lovcom, Inc., by its attorneys, hereby submits its comments on specific facets of the Notice of Inquiry, FCC 09-31, released April 8, 2009 concerning the development of a national broadband plan for the United States. Lovcom, Inc. comments specifically upon Topic #10 "Entrepreneurial Activity".

THE COMMISSION SHOULD ALLOW LPTV STATIONS TO PARTICIPATE IN THE NATIONAL BROADBAND PLAN

1. The American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (the "Recovery Act") directs the Commission to include in its national broadband plan "a plan for use of broadband infrastructure and services in advancing . . . entrepreneurial activity."[1] Lovcom, Inc. is one of the many entrepreneurial FCC licensees of low power television stations ("LPTV") in smaller and medium size communities. Lovcom, Inc. supports allowing for LPTV licensees to use their spectrum to offer wireless two-way Internet broadband service to their communities.

[1] Recovery Act § 6001(k)(2)(D)

2. In *Implementation of LPTV Digital Data Services Pilot Project*, 16 FCC Rcd 9734 (2001), modified on reconsideration in 17 FCC 2988 (2002) (the "DDSA"), a limited pilot project was authorized by the Commission pursuant to the *LPTV Digital Data Services Act*, (Public Law 106-554, 114 Stat. 4577, December 1, 2000).[2] Under the DDSA, the Commission issued regulations pursuant to which specified LPTV licensees or permittees provided digital data services to demonstrate the feasibility of using low-power television stations to provide high-speed wireless digital data service, including Internet access, to unserved areas. As defined by the DDSA, digital data service included: (1) digitally-based interactive broadcast service; and (2) wireless Internet access. The DDSA identified twelve specific LPTV stations that were eligible to participate in the pilot project, and directed the Commission to select a station and repeaters to be determined by the FCC to provide service to specified areas in Alaska.

3. Little seems to have come of the DDSA and its implementation. Prior to the adoption of the DDSA, in a June 14, 2000 Hearing before the Subcommittee on Communications of the Committee On Commerce, Science, and Transportation in the United States Senate (the "High Speed Internet Access for Rural Areas Hearing"),[3] a proposal to allow low power television stations the flexibility to use their spectrum for wireless two-way high speed Internet service was explored. The case against the service was largely based upon its impact upon the DTV transition, and the possibility that existing television service would be lost to population now receiving such television service.

4. Now that the DTV transition is mere days away, and will be completed by the time the Commission considers the issues in this Notice of Inquiry, concern about the DTV

[2] The DDSA resulted in Section 336(h) of the Communications Act of 1934, as amended.

[3] The full transcript of this hearing is available at: http://bulk.resource.org/gpo.gov/hearings/106s/82281.pdf.

transition are largely past. In the case of lost television service, Lovcom, Inc. has in its small community of Sheridan, Wyoming several unbuilt LPTV construction permits for which viable programming options are questionable. The most beneficial use of this LPTV spectrum represented by the several construction permits would be to initiate two-way high speed internet service to the residents of Sheridan, Wyoming.

5. In the *High Speed Internet Access for Rural Areas Hearing*, Dean M. Mosely, the president and CEO of U.S. Interactive, LLC d/b/a AccelerNet, described the experimental system being run by his firm in Houston:[4]

> The technology necessary to bring high-speed wireless Internet service to the public exists today and is in use in the United States, in Japan and in Europe. It can operate over a single television channel without causing interference to television reception. It is called Time Division Duplexing (''TDD''). TDD allows both the uplink and downlink of a wireless signal to be transmitted over the same spectrum without interfering with itself. TDD can achieve spectral efficiencies of between four to 20 times that achieved with more traditional FDD (frequency division duplexing), which requires separate transmit and receive frequencies. TDD systems have been developed and deployed by TRW and Adaptive Broadband, formerly California Microwave.

A trade press article in TelephonyOnline[5] described it in less technical terms this way:

> When people in the Houston area tune Channel 43 on their TV dials, they don't get Gilligan's Island or Bewitched or any of the other fare one might expect to find on a UHF low-power TV (LPTV) station. They probably get nothing at all — unless they subscribe to AccelerNet, a broadband provider that uses the 640 to 650 MHz UHF band to deliver 2 Mb/s of downstream high-speed data through the UHF spectrum.

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[4] *High Speed Internet Access for Rural Areas Hearing*, at page 23.

[5] Available at: http://telephonyonline.com/mag/telecom_next_channel/, a March 19, 2001 article titled *Next up on Channel 43* by Jim Barthold, © 2009 Penton Media, Inc.

6. In an article titled *Fixed Wireless Communications for the Mass Market,* by Adel Ghanem, Ph.D, appended to the *High Speed Internet Access for Rural Areas Hearing* record,[6] Dr. Ghanem observes with respect to the use of LPTV spectrum for wireless internet service that:

> It's not that it isn't possible to construct an efficient, cost-effective fixed wireless system at higher frequencies. But given the alternative of lower versus higher frequency solutions who wouldn't choose sub-2.5 GHz? Wireless technology gets better and more stable every day but some basic facts and laws of physics will never change. A rainstorm still wipes out wireless transmission at 24 GHz and even a simple rainy day can block signals at 3 GHz. Even foliage and building obstructions have a greater impact at higher frequencies. For example, a 3.6 GHz fixed wireless installation in Poland worked perfectly following its fall installation but ground to a halt in spring. The strange phenomenon design engineers failed to account for was the annual reappearance of tree leaves.

7. The Commission recently noted its continuing efforts to promote the efficient use of spectrum by extending the benefits of the use of the television broadcast bands. In *Unlicensed Operation in the TV Broadcast Bands,*[7] the Commission adopted rules to allow new, sophisticated wireless devices to operate in broadcast television spectrum on a secondary basis, at locations where that spectrum is open, to provide broadband data and other services for consumers and businesses. If new devices can, on a non-interference basis, use spectrum *between* licensed television stations, it stands to reason that similar devices could be used by the particular licensee *within* the spectrum licensed to that LPTV station.

8. Lovcom, Inc. notes that while the new services that will be introduced to the public by *Unlicensed Operation in the TV Broadcast Bands* will undoubtedly result in timely new broadband internet service to urban areas, such devices due to their low power are not as

[6] *High Speed Internet Access for Rural Areas Hearing,* at page 28.

[7] *Unlicensed Operation in the TV Broadcast Bands*, FCC 08-260, released November 14, 2008.

certain to provide service to sparsely populated rural areas. This is where Lovcom, Inc. would like to fill in the gap by the use of its LPTV spectrum to provide similar services as authorized in *Unlicensed Operation in the TV Broadcast Bands*, but on a *licensed* basis, subject to the propagation and interference limitations already set forth in the TV translator / LPTV rules[8]

9. The structure for such an LPTV broadband service is already set out in the DDSA, and in *Implementation of LPTV Digital Data Services Pilot Project*. The Commission merely needs to take up where the *Implementation of LPTV Digital Data Services Pilot Project* left off, and once again consider the extent to which wireless two-way Internet broadband service from LPTV stations may fulfill the Commission's obligations under § 6001(k)(2)(D) of the Recovery Act.

WHEREFORE, for the reasons above, Lovcom, Inc. urges the Commission to consider the authorization of LPTV stations to provide wireless two-way Internet broadband service under § 6001(k)(2)(D) of the Recovery Act.

Respectfully submitted,

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[8] Section 74.701 through 74.785 of the Commission's rules.