



NUBRON INC.
3160 De La Cruz Blvd.
Suite 207
Santa Clara, CA 95054
<http://www.nubron.com>
408-855-0009

30 November 2009

To: Jonathan S. Adelstein,
Administrator, Rural Utilities Service
U.S. Department of Agriculture
1400 Independence Avenue, SW
Stop 1599
Washington, DC 20250

and

Lawrence E. Strickling,
Assistant Secretary for Communications and Information
U.S. Department of Commerce,
HCHB Room 4887
1401 Constitution Avenue, NW
Washington, DC 20230.

Subject: Response to

DEPARTMENT OF AGRICULTURE
Rural Utilities Service
RIN: 0572-ZA01

DEPARTMENT OF COMMERCE
National Telecommunications and Information Administration
Docket No.: 0907141137-91375-05
RIN: 0660_ZA28

Broadband Initiative Program and Broadband Technology Opportunities Program

e-mail to broadbandrfi@ntia.doc.gov

Dear Sirs:

NUBRON INC. consults for satellite communications and manufacturing and, in response to the above RFI, would like to offer the following comments.



(1) For example, should any steps be undertaken to adjust applications for satellite systems that provide nationwide service, but are primarily intended to provide access in remote areas and other places not served by landline or wireless systems? [II. Policy Issues Addressed in the NOFA A. Funding Priorities and Objectives. 4. Other Changes.]

NUBRON INC. Comments:

Absolutely. In recent years, a number of satellite broadband systems have been constructed primarily to serve unserved and underserved areas including those in rural areas. The footprints of satellite systems typically cover a large area and, although the initial investment is relatively high, the economy of the scale more than compensates the high initial expense offering the most economical bandwidth to many of those areas. The very fact that in many unserved and underserved areas the only available broadband service today is the satellite service speaks for itself for the economical efficiency of the satellite systems.

Unfortunately the satellite systems have been specifically excluded in the first round of this funding. To exclude the satellite systems and subsidize other less economical systems will actually harm the long term economical efficiencies against the statutory Purposes of the Recovery Act: to provide investments needed to increase economic efficiency by spurring technological advances in science and health; to invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits.

Satellite systems are an infrastructure consisting of space assets and ground assets. Only the space assets should typically be replaced every 15 years.

(2) Should they be modified to include a specific factor relating to the affordability of broadband service or the socioeconomic makeup of a given defined service area, and, if so, how should such factors be measured? Should the agencies adopt more objective and readily verifiable measures, and if so, what would they be? How should satellite-based proposals be evaluated against these criteria? [II. Policy Issues Addressed in the NOFA B. Program Definitions]

NUBRON INC. Comments:

Again, absolutely and absolutely. Broadband technologies are still evolving. All proposals must be required to include a metric for affordability. This will help RUS and NTIA to determine which of currently available technologies will survive in the long run consistent with at least two of the statutory Purposes of the Recovery Act: to provide investments needed to increase economic efficiency by spurring technological advances in science and health; to invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits.



Affordability (i.e., the economy of a given technical solution) can be easily measured by such metric as \$/megabit/user/month when this is estimated without taking the subsidized or grant portion into account.

(3) Mobile platforms such as passenger airplanes and trains must be considered to be unserved or underserved areas.

Broadband to mobile platforms marries the transportation infrastructure to all objectives of broadband technology opportunities program with enormous economic impact. They are consistent with all of the statutory Purposes of the Recovery Act: to assist those most impacted by the recession; to provide investments needed to increase economic efficiency by spurring technological advances in science and health; to invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and to stabilize state and local government budgets.

In particular, airline passengers must have access to Internet. According to Bureau of Transportation Statistics, in 2008 the United States' population in transit amassed 811.4 billion passenger miles per year or approx. 270 million passenger hours per year in air without access to Internet. The reason for this is, although some technical means currently exist, the business model with the long term viability of those technologies has never been proven.

Private investment is not enough for this. It is now history that only a few years ago the Boeing Company built a satellite based system with a large investment but failed to materialize it as a viable business. Today, both terrestrial based and satellite based systems vie for some segments of airplane routes, domestic and international. BTOP funding for this purpose will be well spent for a lasting and great economic impact.

To accommodate a program benefiting the population in transit, BTOP must redefine "the geographical areas" to include mobile platforms that serve all population in transit, not only for those inside the geographical U.S. territory but also for those outside the geographical U.S. territory since the U.S. mobile platforms are still the U.S. territory serving the U.S. population whether inside or outside the geographical U.S. territory.

Very Truly Yours,

Brian B.K. Min, Ph. D
General Manager
(408) 855-0009 (W)
(650) 799-1572 (M)



Affordability (i.e., the economy of a given technical solution) can be easily measured by such metric as \$/megabit/user/month when this is estimated without taking the subsidized or grant portion into account.

(3) Mobile platforms such as passenger airplanes and trains must be considered to be unserved or underserved areas.

Broadband to mobile platforms marries the transportation infrastructure to all objectives of broadband technology opportunities program with enormous economic impact. They are consistent with all of the statutory Purposes of the Recovery Act: to assist those most impacted by the recession; to provide investments needed to increase economic efficiency by spurring technological advances in science and health; to invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and to stabilize state and local government budgets.

In particular, airline passengers must have access to Internet. According to Bureau of Transportation Statistics, in 2008 the United States' population in transit amassed 811.4 billion passenger miles per year or approx. 270 million passenger hours per year in air without access to Internet. The reason for this is, although some technical means currently exist, the business model with the long term viability of those technologies has never been proven.

Private investment is not enough for this. It is now history that only a few years ago the Boeing Company built a satellite based system with a large investment but failed to materialize it as a viable business. Today, both terrestrial based and satellite based systems vie for some segments of airplane routes, domestic and international. BTOP funding for this purpose will be well spent for a lasting and great economic impact.

To accommodate a program benefiting the population in transit, BTOP must redefine "the geographical areas" to include mobile platforms that serve all population in transit, not only for those inside the geographical U.S. territory but also for those outside the geographical U.S. territory since the U.S. mobile platforms are still the U.S. territory serving the U.S. population whether inside or outside the geographical U.S. territory.

Very Truly Yours,

Brian B.K. Min, Ph. D
General Manager
(408) 855-0009 (W)
(650) 799-1572 (M)