NTIA Low-Power Television Digital Programs

June 22, 2007
Overview

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A. Background
Background

Low-Power Stations

Licensed 6,905
Construction Permits 1,381

TOTAL 8,286

Source: FCC March 2007
Background

- **DEFICIT REDUCTION ACT OF 2005**
- **Title III - Digital Television Transition and Public Safety Act of 2005**
  - Allows analog Low-Power TV broadcasts after the full-power TV February 17, 2009 digital transition deadline (§ 3002)
  - Creates two low-power digital transition programs (§§ 3008, 3009)
Background

New Low-Power Digital TV Transition Programs

Section 3008 – Low-Power Television and Translator Digital-to-Analog Conversion

– $10 million available starting October 1, 2007, for purchase of digital-to-analog converter devices by eligible stations
Background
New Low-Power Digital TV Transition Programs

Section 3009 – Low-Power Television and Translator Upgrade Program

– $65 million available starting October 1, 2008, to upgrade eligible stations from analog to digital
Background

New Low-Power Digital TV Transition Programs

- The two programs have different objectives and eligibility requirements.
- NTIA urges each Low-Power TV licensee to review information about both programs when planning its station’s digital conversion.
Background

NTIA’s Goal:

To assist as many qualified stations as possible
B. Low-Power TV Conversion Program (§ 3008)
Purpose of the Conversion Program

- “[E]ach eligible low-power television station may receive compensation toward the purchase of a digital-to analog conversion device…”
- “that enables it to convert the incoming digital signal of its corresponding full-power television station to analog format…”
- “for transmission on the low-power television station’s analog channel.”  [§ 3008(a)].
B1. “Each Eligible Low-Power Station”
Eligible Low-Power Station

Eligible Stations  [§ 3008(c)]

- Low-power television broadcast station
- Class A television station
- Television translator station
- Television booster station
- [Note: both commercial and noncommercial stations are eligible]
Eligible Low-Power Station

Broadcasting exclusively in analog format

[§ 3008(c)(1)]

- Must be broadcasting on date of application
  - With FCC license, or
  - Under FCC Program/Test Authority
Eligible Low-Power Station

Broadcasting *exclusively* in analog format

[§ 3008(c)(1)]

The following stations may not be eligible:

- Stations broadcasting a digital signal on a companion channel. (Such stations are not broadcasting *exclusively* in analog.)
- Stations that have flash cut are not broadcasting *exclusively* in analog.
Eligible Low-Power Station

Stations holding a Construction Permit

- Program is intended to convert operating stations receiving an *analog* full-power TV station.
- Bare construction permits may not be eligible unless the station completes construction and begins broadcasting by September 30, 2007.
- Stations with construction permits should plan to receive their full-power *digital*, not *analog*, station.
Eligible Low-Power Station

- A station CANNOT have purchased a Digital-to-analog conversion device (DACD) prior to enactment of the Digital Television and Public Safety Act of 2005 (February 8, 2006) [§ 3008(c)(2)]
- DACD is explained in Equipment Section.
Summary: Station Eligibility

When an application for conversion funding is filed, a low-power station:

- Must be broadcasting with a FCC license or program/test authority.
- Must be broadcasting only a analog signal, not on a companion channel.
- Cannot have purchased a digital-to-analog conversion device before 2/8/2006.
B2. Equipment

The program provides compensation toward the cost of purchasing a digital-to-analog conversion device (DACD):

“…digital-to-analog conversion device that enables [the station] to convert the incoming digital signal of its corresponding full-power television station to analog format…” [§ 3008(a)]
Equipment

“…to convert the incoming digital signal of its corresponding full-power station…”

[§ 3008(a)]

- Equipment must receive/convert the incoming off-air signal of a full-power digital station to analog.
- Equipment cannot be used by a station that receives an analog station in a “daisy chain.”
- Equipment cannot be used by a station that receives baseband video via satellite or microwave.
NTIA Assistant Secretary

“…Shall determine the maximum amount of compensation such a low-power television station may receive based on the average cost of such digital-to-analog conversion devices…But in no case shall such compensation exceed $1,000” (Conference Report on S. 1932, Congressional Record, 12/18/2005, p. H12692)
NTIA realizes that many installations vary in complexity and design.

This program is only intended to support the acquisition of a DACD to convert the off-air signal of a full service digital television station.
Equipment

Commonly used systems

- **Type 1** – Tuner/receiver that feeds an Analog Translator
- **Type 2** – Tuner/receiver that feeds a Microwave which serves other Translators
- **Type 3** - Heterodyne Processor
Type 1 – Tuner/Receiver

Feeds Analog Translator

Analog off-air tuner/receiver (Existing)

Video out
Audio Out

Modulator (Existing)

Analog RF out On Channel

RF Amplifier (Existing)

RF amplified output on new channel
**Type 1 – Tuner/Receiver**

Feeds Analog Translator

**Receive Antenna**

**Transmit Antenna**

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**Digital signal**

**Must be replaced**

**Analog off-air tuner/receiver**

(Existing)

**Video out**

**Audio Out**

**Modulator**

(Existing)

**Analog RF out**

On Channel

**RF Amplifier**

(Existing)

RF amplified output on new channel
Type 1 – Tuner/Receiver

Feeds Analog Translator

Receive Antenna

Digital off-air tuner/receiver
(NEW)

Video out
Audio Out

Modulator
(Existing)

Analog RF out
On Channel

RF Amplifier
(Existing)

RF amplified output on new channel

Transmit Antenna

Digital signal

NTIA grant
Type 2 – Tuner/Receiver

Feeds Microwave

Analog off-air tuner/receiver (Existing)

Analog signal

Receive Antenna

MW Antenna

Baseband

Video out

Audio out

Microwave
Type 2 – Tuner/Receiver

Feeds Microwave

Receive Antenna

MW Antenna

Digital signal

Must be replaced

Analog off-air tuner/receiver (Existing)

Baseband
Video out

Audio out

Microwave
Type 2 – Tuner/Receiver

Feeds Microwave

Digital off-air tuner/receiver
(NEW)

Baseband Video out
Audio out

Microwave

Receive Antenna

MW Antenna

Digital signal

NTIA grant
Type 3 – Heterodyne Processor

Analog signal

Receive Antenna

Heterodyne
Changes channel from input to output
(existing)

Transmit Antenna

RF Amplifier
(Existing)

Analog RF out
On Channel

RF amplified output on new channel
Type 3 – Heterodyne Processor

Receive Antenna

Transmit Antenna

Must be replaced

Digital signal

Heterodyne
Changes channel from input to output (existing)

RF Amplifier
(Existing)

Analog RF out On Channel

RF amplified output on new channel
Type 3 – Becomes Tuner/Receiver

Digital signal

Receive Antenna

Digital off-air tuner/receiver (NEW)

Modulator (NEW)

Must be added by station

Analog RF out

RF Amplifier (Existing)

RF amplified output on new channel

Transmit Antenna

Digital signal

NTIA grant

Becomes Tuner/Receiver

Digital off-air tuner/receiver (NEW)

Modulator (NEW)

Must be added by station

RF Amplifier (Existing)

RF amplified output on new channel
Digital-analog Conversion Device (DACD)

- Device to pick up digital full power station off-air so it can be converted to analog
- Device must auto reset to designated full power TV station virtual channel (e.g. Ch. 26-3) in event of power failure
- DACD will replace existing Tuner/Receiver or existing Heterodyne Processor
- Average Tuner/Receiver Cost: $1,000
Equipment

Other possible station expenses

- Off-air antenna (if full-power station changes from VHF channel to UHF)
- Installation (depending on local conditions)
- Heterodyne systems may require modulator (in addition to Tuner/Receiver); integrated Tuner/Receiver/Modulator may be available.
Equipment

To assist as many stations as possible, NTIA may issue awards:

- Tuner/receiver average cost: $1,000
- Uniform $1,000 award per station
- @ 8,000 stations
- TOTAL AWARDS = $8,000,000
B3. Priority Compensation
Section 3008(a) requires that priority compensation be given when either:

- A license is held by a non-profit corporation;
- A station serves a rural area of fewer than 10,000 viewers.
Priority Compensation

Non profit *corporations*

- Usually organized under IRS § 501(c) [26 U.S.C. § 501(c) excluding § 501(c) (4)]
- Usually does not refer to governmental units unless the unit has a separate corporate charter
Priority Compensation

Stations that serve rural areas of fewer than 10,000 viewers

- NTIA may use the number of viewers in the station’s protected coverage area (as calculated by the FCC’s 50/50 contour) as the basis for Priority Compensation
Priority Compensation

Implementation

- **Priority Period** (10/1/2007-12/31/2007)
  - NTIA will only process applications that qualify for priority compensation.

- **Open Period** (1/1/2008-2/17/2009)
  - NTIA will process all applications.
Priority Compensation

- General methods of addressing priority compensation:
  - Self certification of non-profit status
  - Self certification of population covered

- NTIA may request documentation of the non-profit status or population coverage.
B4. Administrative Procedures and Timetable
Administrative Procedures

Application Process

1. Prepare application electronically
2. Print and sign application
3. Have bank officer sign payment enrollment form (SF-3881)
4. Mail application and bank form
Administrative Procedures

- Applications must be prepared electronically as well as printed and signed
- Applicants must submit the following:
  - Licensee Name (including DUNS number)
  - Station call sign, city of license, FCC facility #
  - Identification of corresponding full-power TV station
Administrative Procedures

- Applicant must certify that the Station:
  - Is licensed by FCC (or has filed on ____ (date))
  - Is broadcasting exclusively in analog, and
  - Did not purchase digital-to-analog device prior to February 8, 2006

- IF PRIORITY COMPENSATION REQUESTED:
  - Is operated by non-profit corporation, or
  - Serves a rural area of less than 10,000 viewers
Administrative Procedures

- All Applications must be signed by applicant
- SF-3881 must be signed by bank official
- Application and SF-3881 must be postmarked no later than February 17, 2009
- Electronic payments will be made to applicant’s bank.
Administrative Procedures

- Applicant must comply with Department of Commerce Standard Terms and Conditions for grants
- NTIA reserves the right to request documentation regarding any information supplied in an application
- Applicants are requested to complete optional information form for the Digital Upgrade Program (section 3009)
Administrative Procedures

Timetable

- **Publish Notice of Availability of Funds**
  - September 2007
- **Accept applications for Priority Period**
  - October 2007-December 2007
- **Accept applications during Open Period**
  - January 2008-February 17, 2009
D. Section 3009
Low-Power TV Upgrade Program
Low-Power TV Upgrade Program

Overview

- **Reimbursement** for equipment to permit low power stations to broadcast in digital
- $65 million available for eligible stations
- Program begins in FY 2009
Low-Power TV Upgrade Program

Eligible Stations

- Same as § 3008 Conversion program
  EXCEPT:
  - Low-power stations must be in communities of less than 20,000
- Note: Priority will be given to stations in rural areas with less than 10,000 viewers (same as § 3008)
Low-Power TV Upgrade Program

Optional information on application form

- NTIA asks that stations supply additional information
  - Applicants for Conversion Program
  - Station that may not be interested or eligible for the Conversion Program
- Help NTIA plan for Upgrade Program
- Assess potential participation in Upgrade Program
Low-Power TV Upgrade Program

Optional information on application form

- NTIA asks that stations supply the following additional information:
  - Translator equipment model and power level
  - Transmit antenna information
  - Whether any site, power, or accessibility issues exist?
Low-Power TV Upgrade Program

Optional information on application form

- NTIA asks that stations supply the following additional information:
  - Community less than 20,000, less than 10,000?
  - Interest in applying for Upgrade Program
Questions?

- **Mail:** NTIA Translator Program
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