

Cohen, Dippell and Everist, P.C.

LOW-POWER TELEVISION AND TRANSLATOR
UPGRADE PROGRAM IN RESPONSE TO
PUBLISHED NOTICE IN FEDERAL REGISTER
VOL. 73 NO. 197
NOVEMBER 2008

The following comments by the firm of Cohen, Dippell and Everist, P.C. (“CDE”) are respectfully submitted and concerns the low-power television and translator upgrade program. CDE and its predecessors have practiced before the FCC for over 60 years in broadcast and telecommunications matters

Station Eligibility

- Station is operating under license, license application for program test or STA should be considered whether analog and/or digital as of October 31, 2008
- Station eligibility should not be disqualified if licensed by a governmental unit
- Eligible community – the community of license should be used and if not viable the coverage contour defined by Section 74.707 and Section 73.6010 of the FCC Rules

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DARWIN HILLBERRY
RIVERTON, WY 82501

TO: NTIA
LYNN CHADWICK,
CHUCK MELONE

SUBJECT: NTIA Analog to Digital Upgrade Program

1. In response to the NTIA Digital to Analog Upgrade Program Brochure dated October 24, 2008, Concerning issues 1 through 6.

Issue 1: How to define the eligibility of a station:

A station operating and licensed analog before February 8, 2006 should be eligible for the program. A CP for an analog station should not qualify as it is not in operation; this would cause unbuilt stations to bypass the analog expense.

Issues 2 and 4: Eligibility of rural communities and Priority reimbursements for stations of less than 10,000 viewers.

Eligible rural communities less than 10,000 population should be first, then less than 20,000 should be next. Use the Zip Codes contained in the FCC analog contours and the city of license to determine the eligibility. Also use the non-profit corporation IRS TIN number or Unincorporated Associations or Groups that have an FCC facility ID Number. Local government should qualify. If a station has received NTIA money under a different grant, it should not be eligible again. Stations that qualified for the \$1000. should automatic qualify for the analog to digital upgrade program.

Issue 3: Requirements for reimbursement funds:

Reimbursement for companion channels built after February 8, 2006 or a station that converted after February 8, 2006 (Flash cut). On the application form, have two boxes: (1) a simple upgrade box with a cap of \$10,000 containing a short statement of the plan and estimated costs, no extra reporting unless asked by the NTIA and (2) a box for total replacement of the whole translator unit with a cap of \$20,000 with an extra \$5000.00 added to the cap, if the translator is moving from vhf to a uhf channel (to be used for the transmit antenna) the box should contain a detail of the equipment you are going to buy with a quote from a supplier and provide the NTIA with paid invoices when the upgrade is completed, if requested by the NTIA.

Issue 5: Costs for Reimbursement:

See attached estimates of equipment costs.

Issue 6: Selection of applicants:

The funds should be granted on a first come first served basis for the group under 10,000 population. Then next would be first come first served basis for the group under 20,000 population. This would provide for the distribution of funds for the rural program.

Additional Issues:

The funds should be issued in advance of the change to digital ,as most translators will not have the funds to make the change over before receiving the funds.

Use the internet to request the funds and the NTIA form should be as simple as possible.

ESTIMATES OF EQUIPMENT COSTS

Example Number 1: Based on converting an existing 100W analog to a 30W digital Translator:

Equipment	Low Cost	High Cost
Transcoder/Modulator	\$2,800	\$5,500
New Antenna w/panels or slot	\$2,500	\$5,000
Receive PreAmp and Antenna	\$800	\$2,000

New Filters:		
GPS	\$300	\$450
Mask Filter	\$850	\$4,200
Transmission Line	\$200	\$1,200

Example Number 2: Complete Translator Change

Equipment	Low Cost	High Cost
New Translator	\$12,000	\$20,000
New Antenna w/panels or slot	\$2,500	\$5,000
Simple Mask and GPS filters included in new unit		
Extra for Stringent Mask	\$3,600	
Transmission Line	\$200	\$1,200

The examples do not include installation or engineering expense , as most translator operators do their own installations.

These are just examples taken from different manufacturers price list. Actual costs may vary. I am providing this as a guideline.

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14 November 2008

**Comments by Edward Middlemiss on
NTIA LPTV Digital Upgrade Program Eligibility Criteria
Indian Wells Valley TV Booster, Inc.**

Issue#1. Eligible stations.

Time of exclusive analog operations. It is a reasonable requirement that an eligible station must have operated exclusively in analog broadcast format over a time period including either 8 February 2006, or any later date (barring that it does not exceed a chosen cutoff date), given that operation of an analog station awarded a companion digital station construction permit serves to make the companion station eligible. By that line of thought, it is also reasonable that a construction permit for an analog station which is “flash cut” to a construction permit for a digital station should also be eligible if it meets the flexible qualification date interval stated above. It is not acceptable that any companion station (Class A, LPTV, or translator) be denied eligibility status on the basis that it was not operated as an analog station (given that the eligibility period is met) if any analog station construction permit (not built out and licensed within the eligibility period) is granted eligibility status.

The wording of the qualifying analog-format “operation” date in above comments is chosen to offer flexibility to the qualification process. Some of the commentary offered at the NTIA’s public hearing on 28 October 2008 suggested that a single calendar date of station analog format operation might be applied for the purpose of assigning eligibility status (rather than a range of calendar dates). The harm this approach to defining eligibility does is to potentially penalize either (actually both) a station that has been operated in analog format before being flash cut to operating in digital format or (and) a station put into operation later (or a construction permit awarded later), but each of them falling within a time period before a reasonable cutoff date.

The Indian Wells Valley (IWV) TV Booster, Inc. offers examples of both “unreasonable” disqualifying conditions: we applied for flash cut construction permits for the eight stations operated from the first site of a two-site daisy chain, and companion station construction permits for the eight stations operated from the second site.

The analog translator daisy chain we operated served the communities of the Indian Wells Valley, located about 100 miles north of Los Angeles. Seven of the eight flash cut stations on the first site have as of this date been licensed for digital operation (the eighth station awaits full power digital transition completion on 18 February 2009, as the reception conditions for the signal from the KABC-DT out-of-core temporary companion station are not acceptable).

We have been able to make an early start on our digital transition because we retained a war chest of funds retained for this purpose, but these funds were not adequate for anything beyond the costs of applying for the

companion stations to the analog stations located at the second site. Without availability of grant funds we won't be able to complete facilities for the companion channel construction permits.

Licensed operation versus CP. In order to secure the channels needed for our digital transition, we prepared for licensing these facilities in advance of filing windows (our proximity to Los Angeles lead us to believe that these could be a rare commodity). We also believed that it served the purposes of the nation's digital transition plan (and the people of our communities) to make the earliest possible start. Note that many of the CPs (in common with many other applicants) may not be built prior to the availability of grant funds (funding constraints).

We hope that the policies to be laid down by the NTIA digital upgrade program do not penalize us for the early start we made.

Additional comments. The precedent of the cutoff date for application for digital converter boxes set at 31 March 2009 may be useful in setting a cutoff date for eligibility of LPTV licenses for the upgrade grant program.

If the eligible date and the cutoff date are one and the same (or are even close together), the wording becomes crucial (exclusively in analog by said date may allow prior conversion to digital operations based on having already established analog operation—but then more than one date is involved again). Those prospective digital LPTV operators who have not already applied for their licenses in prior filing windows may not be a good bet for grant awards—they run a risk of getting MXed, or of incurring other delays. If they haven't already completed the engineering study for their FCC license applications, they may not be able to get that part completed in a timely fashion (suggestion: don't offer a grant without having a full, actionable, license application in hand—but of course, some CPs granted by the FCC are not buildable due to errors, omissions, and worse in the application package).

Issue#2. Eligible Rural Communities.

Television translators are the quintessential medium for serving TV signals to (remote) rural communities. A digital upgrade grant program intended to serve rural communities that excludes translators is not worthy of the name (impetus to make this observation was provided by comments made at the 28 October hearing suggesting that translator stations, or translator companion stations, ought not qualify for digital upgrade grants).

Defining a rural community. Flexibility in defining eligible communities is a desirable feature for the administration of the program. A criterion applied to a Class A station may not be reasonable when applied to a translator station; a criterion crafted to define an affluent community may be unsuitable when applied to an impoverished community; and a criterion developed in the context of an exclusively rural community may disenfranchise the rural component of an area served by an LPTV license which encompasses both urban and rural components of remote communities. Further comments (describing rural communities) are provided in the section below concerned with grant fund priority.

The IWV TV Booster's translator system was originally built in an era when retailers of television receivers installed antenna systems as a matter of course. Under these conditions, it was reasonable to install a system whose signal strength was strictly marginal in outlying areas (high-gain antennas and sensitive antenna amplifiers were needed to get even a snowy picture on the TV screen there). Since then, with the advent of multi-channel services, retailers no longer have an incentive to install antennas (but only see liabilities in doing so); they actually derive more income as agents signing up new customers to multi-channel services than retailing TV receivers. With no way for our users to hire reasonably competent antenna systems installers at affordable prices, we feel a need to provide an upgraded signal strength; *hence we recommend that the community served be defined by the analog station service contour (A contour; we have made an effort to maximize our digital service area in order to compensate for the prevalence of marginal receiving systems among users of our system).*

Additional comments. As to the nature of the segment of the community served by broadcasters (including translator stations), the more affluent segments have been peeled off by the several multi-channel services, leaving the remainder to depend on the offerings of the broadcasters. We don't have any ideas on how to administer exceptions either for communities of mixed affluence or of mixed urban/rural nature. The only chance broadcasters have of getting multi-channel service subscribers to also use over-the-air signals directly is to complete the digital transition (and maximize service through programming diversity with multicasting).

Eligible rural communities defined by community of service is an iffy thing; I don't think that anyone has policed the terminology entered into this block on a license application

Issue#3. Eligible costs; reimbursement.

Depending on the applicant, overriding importance may be attached to the timing of the "reimbursement" funds. It is so for the TV Booster. As noted above, we have construction permits for the digital companion channels applied for during the FCC's filing window. These permits expire in little over a year, and construction of the facilities depends on the availability of grants. Prompt availability of funds would be crucial to build-out of digital companion station facilities. We don't think that translator operators like ourselves will be able to obtain bank monies without

availability of, at the least, an NTIA financial instrument to offer as loan collateral. Having no access to tax revenues (as a county-operated system, as does San Bernardino County's translator system in the Mojave desert), or advertising revenues, as do true LPTV operators, we have no income other than voluntary donations (repetitious enhancement, like free gift), hence a bank would presumably pass over a loan request, absent a financial instrument which could be assigned to the bank's priority for collateral backing a loan. Even then, a bank might be hard to convince, given the current state of affairs for financial institutions.

Planning and installation costs. Inclusion of engineering costs incurred in support of FCC license application should be applicable (no license is likely to be awarded without it—and almost no applicants are equipped to perform Langley-Rice calculations themselves, so they must hire experts to do it). Other types of planning costs are not so obviously applicable, as these might be in the nice-to-have category, and many organizations doubtlessly perform some of them in-house. Installation costs are also less obviously applicable, and for the same reason. We have ourselves performed these in-house, as we have had available expertise in both the skilled technician and former station operator categories, made available on a volunteer basis (you could say that we get a lot of bang for the buck).

Eligibility of heterodyne processor or transcoder/regenerator. Signal reception conditions at the translator site determine whether heterodyne processing of the received signal (classical translator configuration) or regeneration of the 8VSB error correction/encryption layer of the digital transport stream is more desirable. In either case the equipment required to perform the selected process should be eligible for reimbursement under the LPTV digital upgrade grant program, as it is an essential part of type-accepted equipment.

When might funds eligible for reimbursement be spent? We feel that limiting the spending of funds eligible for reimbursement to a late date is unwise and risky. First movers (such as ourselves) have a track record available for review (we think that ours is very successful). Operators who have not yet begun their digital upgrades have a lot to learn (or a lot to spend on premium equipment, consultants and planners), and the learning process will not be pretty in the time remaining. We admit that we have made several false starts, but having the advantage of the early start, we have been able to recover from them (and amazingly, not wasted much in the way of funds on them). We do, already, have our first tranche of eight new and upgraded digital translators fielded (seven), or ready to field (the eighth), given signal sources available as of 18 February 2009.

Should there be a cap on funds issued to a single station? We feel that it would be a reasonable trade-off to gain a simplified application process that yields a block grant of funds (of a quite limited amount) to be applied to a simple digital translator upgrade. Based on the costs we have experienced (discussed at length below), a flat-rate grant of \$6000 for upgraded equipment (modeled on the digital conversion process) would be desirable from both administrative and grantee application points of view. Requiring type-certification for the equipment covered is not justifiable (or feasible); upgraded, type-certified equipment is both rare and expensive (and if not expensive, might I say, an oxymoronic term).

Upgrade existing equipment versus replacement (flash-cut application). We employed a combination of upgrade and new replacement on our flash cut stations. The age of the equipment was largely the determinant for the decision. Before the digital transition kicked off, we had been implementing the policy of upgrading our 10- and 20-Watt analog translators to 100-Watt replacements (see the comments above regarding the new era of multi-channel providers—we felt that too many of our prospective users were opting for subscription service as an alternative to the difficult task of installing/maintaining a precision receiving system capable of operating outside the FCC B contour service area (much or most of the served population was outside the B contour of the 10- and 20-Watt analog translators). As the 100-Watt replacements were on the order of 10 years old or less, we felt that they would be upgradeable to 25-Watt digital translators, as eventually proved to be the case. The 10- and 20-Watt analog translators are in the 30 to 40 year old category, and neither feasibly upgradeable to digital standards, nor could be considered to be maintainable even if they could be upgraded (only our technically proficient volunteer technician staff made them operable for the extended life demanded of them as it was).

Our upgrade path (five units) included installation of a Larcant transcoder (under \$3000), as heterodyne operation at over 100 miles of mountainous terrain from Los Angeles Mount Wilson transmitter site was not feasible. It also included a new final amplifier stage and cabling to the transmit antenna (at somewhat under \$1000), and consulting engineer support for the license application (also at somewhat under \$1000). In at least one case, the isolator (circulator) has to be upgraded or replaced (ongoing, at an unknown price, probably about \$100 to \$400). The transcoders, only about two years old, may in some cases need upgrading to current standards. The upgraded translators, equipped with aftermarket linear amplifier and transcoder, is not type accepted; therefore we have had to do performance verification in order to license them. We have found that the three-pole output filters supplied with the 100-Watt analog translators are suitable for use with the simple mask filter requirement.

Once again, this has been accomplished with volunteer experts, at minimal out-of-pocket expense (test equipment (at used equipment prices) exceeds a cost of \$10,000). The average cost of these upgrades is in the neighborhood of around \$5000, not including test equipment. A less fortunate organization (less well-equipped, less

well-staffed) would have to farm out much of these tasks (or go the type-accepted route, at an additional cost of over \$6000 each).

Our translator replacement path (four units, one is a spare) involves the purchase of a type-accepted 25-Watt digital translator/transcoder set, at a cost of about \$10,000, including new antennas and cabling (out-of-core licenses and abandoned channel-cut antenna equipment were involved in this variation of our upgrade path). Note that this cost is slightly less than the type-accepted upgrade path for our 100-Watt analog translator equipment (this is why we pursued the new equipment approach, using equipment bought from Pineapple—we were the premier application for their digital translators).

Upgrade (companion channel application). We have not begun on this path yet (except for the spare upgraded transcoder/translator). Our so far approach has been to apply for relocation of companion channels to the primary (first-hop) site with 25-Watt digital licenses; we expect to purchase more Pineapple Technology, Inc. translator/transcoder equipment sets (the transcoder is from Larcan; we have been very happy with the new, type-accepted equipment used on flash-cut stations). We have yet to formulate a service enhancement plan that maximizes use of the eight companion channels CPs awarded to us. After 17 February we will be able to complete signal surveys, when the full power digital transition is over. In the meantime, we have been seeking community inputs before identifying priorities.

Issue#4. Priority Reimbursement.

Nonprofit corporation. The issue of proper administration of property (equipment and licenses (both site use and FCC transmitter licenses)) caused the founders of the predecessor to the TV Booster to establish a corporate model for its operational concept. When the corporation was renamed (and its purposes narrowed to that of) the TV Booster, application for recognition of its status was complicated by the way that the Internal Revenue Service (IRS) operates, and the scarcity of appropriate legal advice lead us to accept the award of what is now recognized as an unacceptable category (we were convinced by the IRS during the 1980's that the TV Booster's operations fell into the category of a 501 (c) (4) organization). We are endeavoring to remedy that situation (in order to be granted the 501 (c) (3) category), but in retrospect, it is perhaps informative to your question on how to qualify "nonprofit" status to applicants.

Possession of an IRS category may have more to do with anomalies of history than that of actual mode of operation of a translator system. As our translator system occupies property owned/administered by the Naval Facilities Engineering Command (NAVFAC), and our use of it is governed by a license issued to us by NAVGSC, our operations are much more closely observed and regulated by that relationship than it is by the secretary of state for California (under whom the articles of incorporation are issued and maintained), by the IRS (who reviews our Form 990 financial operations reports, and issued us our 501 (c) category), or by the counties of Kern and San Bernardino (who collect taxes on our corporate personal property, *i.e.* equipment).

Our recommendation is to tread lightly on the issue of strictness in defining "nonprofit" status, as we believe that how the organization operates is more important than the classification issued by the IRS (its procedures lacking what the real world would recognize as consistency). By that same reasoning, association status versus corporate may also call for "treading lightly." Use of broader eligibility criteria than just the IRS 501 (c) (3) category (as done for the digital conversion grant program) would be a help. Instead just looking at tax filing category, or the broader issue of articles of incorporation, consistent application of policy might be improved if benefits are also derived from a look at how the organization operates.

In the area of defining merit of, or need for priority in grant aid, I suggest looking at how operations are funded. Translator systems having access to fees or taxes collected by government entities for operations and infrastructure support may already be generously funded (ones I know of certainly seem to be generously funded). In the case of the TV Booster, all our funds have come from receipt of donations from the public (local users, actual and potential). As efforts to raise funds compete for volunteer time with efforts to maintain and improve the equipment, we have been tightly focused on economy of operations. That is the reason we have continued to operate 30-year old solid state translator equipment in parallel with programs to upgrade the equipment which change before they can be completed (at first, to improve user-base received signal strength, then to implement channel relocation, then to implement the digital transition).

Rural community, definition of. . . The reasoning behind the above appeal to apply flexible qualification standards seems also to extend to the "rural community." The functional opposite of the rural community (within the context of the subject of mass telecommunications) is the urban community large (and rich) enough to support full power television stations. So, the functional definition of the "rural community" seems to be a population without (adequate) full power station signal coverage. It is this shortcoming that translator systems were conceived to remedy. Low power television stations are the smaller brethren of full power stations that (may) be geographically situated to be viable where a full power station might not. The functional distinction being made here is that geographic isolation

denies the “rural community” the services of full power television stations, but which might be afforded within the lower cost confines of the operation of a translator system or low power station(s).

An LPTV station market area with a population less than 10,000 is questionable. A stand-alone TV translator system serving such a small population base may be viable, but perhaps most translators serving such a small population are a component of a larger, multi-point system.

I suspect that most small rural communities are served in conjunction with an incorporated community (especially so in the case of LPTV stations). Flexibility in defining the rural community seems to be a necessary component of any digital upgrade LPTV grant program. If (the absence of) “adequate” full power television station signal coverage is the principal determinant in the definition of a “rural community” for the purposes of a grant program, then the presence of an incorporated community in the coverage area of an LPTV (or translator) station is not disqualifying (as the coverage area of full power stations may be taken to define non-rural, as opposed to incorporated city population).

We recommend flexibility in the definition of station coverage area is called for (analog station A-contour, B-contour, or community of service). In the case of priority status, we obviously would prefer coverage area as defined by the A-contour, as we believe it would qualify all our analog station counterparts to our digital companion channel CPs (the 20-Watt UHF analog station would be the only one in question).

Multiple qualification criteria, concatenation of . . . Disqualifying applicants failing one of two separate qualification criteria reduces the number of eligible applicants, which may be desirable, but the burden of justifying each of the criteria may grow, as a flaw in its definition (or its application) has harsher consequences than the alternative approach.

Issue#5. Effective date(s).

Station eligibility. A commentary on suitability of station eligibility dates can be found at the top of these pages (under Issue#1). The question whether the program should establish a date of station eligibility could be re-phrased to say that each station should establish a date on which it became eligible, consistent with a permissible range of dates (a date of analog station operation, issuance of a CP for an analog station, or issuance of a digital companion station CP for an analog station). An date for eligibility purposes of 29 March 2009 might be suitable for an analog CP, but a date of 8 February 2006 might be suitable for analog operation of a station which was either subsequently issued a digital flash cut CP or issued a digital companion station CP (given the CP was issued by, say, 29 March 2009).

Expenditure eligibility. It may be argued that an expenditure incurred after the eligibility date of the station may be considered eligible for reimbursement. To say otherwise is prone to condoning an unnecessary paradox. This is an example of how the two dates may be the same.

Issue#6. Conduct of program.

Efficiency. Some discussion of efficiency is found under *Issue#3 (cap on funds issued to single station)* above. We propose establishing separate tracks for translator stations and other types of LPTV stations.

Accelerated translator station upgrade track. For an expedited translator station track, simplicity of application procedure can be matched with a Spartan level of grant award, together with a minimal administrative burden and a prompt time frame. The applicant should submit evidence that the FCC has issued both an analog station license (construction of an analog station is required, though it may have been constructed long ago) and a subsequent digital CP (either flash cut or companion station). If the digital translator station has already been built and licensed by the time of the application, so much the better (evidence of completion). The grant award may not await completion of construction, but an obligation to submit evidence that the FCC has awarded a digital translator license after completion may be incurred. Grants awarded to stations applying on the expedited track may be uniform grants awarded on a first-come, first-served basis (any other track may be operated on a different basis). The size of the grant may be only sufficient to fund the upgrade of recent-model analog translator station equipment.

We have found that in order to maintain type certification of our recent-model ITS (now Axcera) model 820 100-Watt analog translators, upgraded to digital operation at the factory, requires an expenditure exceeding \$7000 each. We have elected to make modifications in-house (forfeiting type-certification) in order to upgrade our 100-Watt analog translator stations to digital operation at the 25-Watt level, but performance-verified (now in licensed operation). This was done at an average cost of about \$6000, thanks to the liberal use of volunteer labor.

If the NTIA offered digital upgrade block grants of \$6000 for analog translator stations, available under streamlined application and administrative procedures (modeled after those of the digital conversion grant program), many station operators might opt to use this track. Obviously, such an expedited program would not technically be a “reimbursement” program; as the amount is minimal, and in nearly every (perhaps actually every) case the block grant amount falls short of the (potentially) reimbursable amount should the application be submitted another way, the benefits of efficiency made possible by this approach should be perceptible to both parties (grantor and grantee).

Other upgrade paths. As for the many possible “actual reimbursement” approaches, we recommend policy setting forth what types of expense qualify as reimbursable, and then letting prospective grantees figure out how to maximize their potential benefits. As to reimbursable categories of expense, we recommend setting a cap on each distinct type (*e.g.* consulting engineer fees in support of FCC license application), perhaps differentiated on a scale for translator, LPTV, and Class A stations.

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Jim Forsyth
Walla Walla University
Director, Technical Support Services
College Place, WA 99324

Dear NTIA Administrators:

Thank you for the valuable time you provided at the recent CBA Convention. I have a few points to express from our local perspective and how your upgrade program will affect us.

- 1) Blue Mountain Broadcasting Association (known locally as Blue Mountain TV) maintains three (3) Class A television transmitters in order to cover our odd-shaped Walla Walla Valley in Southeast Washington. These transmitters generally broadcast the same programming material, but we have the capability of sending different programming streams to each one. We are the only station(s) in the local area that broadcast programming of local community content, such as local news and events and community activities, with interviews produced by our local Walla Walla University students.
- 2) Our Walla Walla Valley consists of three separate communities of Walla Walla and College Place, Washington, and Milton-Freewater, Oregon, with the Washington/Oregon border crossing within our small valley. There are also several very tiny communities in outlying areas that are not receiving our signals, but are included in our contour area by the FCC. Our total population of the three main communities is a little over 60,000, and that includes the residents of the Washington State Penitentiary and students at the three local colleges & university. The FCC contour plots indicate a much larger viewing population covered by our transmitters than we calculate, and one of the plots indicate a population that is at least twice the number of our total valley population. We don't understand where they get this many people, especially when terrain shielding is apparently not being considered.
- 3) We are a non-profit organization (501(c)(3)) and only rely on the meager donations of our viewers. I say "meager" because a significant portion of our population is made up of retirees on fixed income and low-income people, such as inmate families and migrant farm workers. Many ethnic minorities in our broadcast area have very limited ability to support our station, but we do include programming of interest to them. Our operation is Christian faith-based, supported by those who desire to have "safe" programming that is appropriate for all age groups, including children.

4) We provide an excellent opportunity for local students in Walla Walla University's Mass-media and Communications program to get valuable experience producing daily news and interview programs for live broadcast.

5) We are being very pro-active in our planning to upgrade our three transmitters to digital, but are being held back by the lack of funds up front. Our engineering is being done, but it would be very helpful to receive some grant-funding up front to enable us to move ahead more quickly. If we could know there would be a certain amount of grant money coming, perhaps we could take out a loan first, then pay it back with grant funds, but this idea is not necessarily good management, and makes us a little nervous. Perhaps it would be a great idea if grant monies could be released to us upon our receipt of an FCC Construction Permit. We would like that.

Thank you very much for compiling everyone's' comments and coming up with a fair and equitable policy for distributing the grant funds. We look forward to hearing good news soon.

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COMMENTS OF GREG BEST CONSULTING, INC

1 Greg Best Consulting, Inc. ("GBC") hereby submits its comments in response to the NTIA'S request for comments regarding the Low-Power Television and Translator Upgrade Program (the "Program").

2 The details of the Program need to be thorough. GBC appreciates the effort that the NTIA has made to examine the digital transition for Class A, LPTV, and Translator stations with regard to the funding assistance intended by the Program. These comments are made assuming the objective of a speedy transition of analog of Class A, LPTV, and Translator stations to digital service. The topics that GBC believes it is qualified to make comments are listed below with no priority assigned by number preceding the section of comments.

3 Station Eligibility.

An eligible station is described as "broadcasting exclusively in analog format". GBC believes an appropriate definition for the term above to include LPTV, translator, and Class A stations having analog licenses. This would not include construction permits for analog facilities, or those organizations that have STA's for analog facilities but no accompanying licenses. This definition would include licensed analog facilities with construction permits to flash cut to digital or to create digital companion channels.

Furthermore, it is a belief that a uniform window of eligibility should be established so that very early adopters who have found the means to already operate both analog and digital stations (i.e. funding isn't as big an issue) would not be eligible for the Program and those stations that procrastinate too long to take advantage of the benefits of digital facilities would also not be eligible.

Many of the translators are parts of a governmental body that provides alternative programming to rural communities. GBC believes these translators should be treated as a non-profit corporation and thus qualify for priority reimbursement.

4 Eligible Communities

In most instances the only way to quantify a service area may be to look at its population covered. It is GBC's opinion that the Grade B service area population should define the rural service area. This is based upon replication of the analog service being provided now. The definition should include the measurement parameters for the Grade B service area. Specifically, the predicted Grade B signal strength according to OET-69 should identify the population served by the particular station. If the Grade B service population is reduced by interference by other co-channel or adjacent channel digital stations, then the smaller number should be used as the reference base.

5 Priority Reimbursement

There are authorized facilities that need more assistance than others. Therefore it is GBC's opinion that a priority ranking system should be established. The rural service area definition used above may be used to determine priority. In general, priority system that assigns points based upon certain criteria is easier to score and hopefully easier to rank as funds are assigned. A category system can also be used to separate those with priority and those without priority. Within each category a point system can be assigned so that rankings of authorizations can be achieved.

It is GBC's opinion that the following factors should be considered when ranking or assigning points within each category:

- Population served.

- Age of equipment being converted or replaced.

- Spectrum efficient facilities (for example, single frequency networks, multiple program streams on single RF channels)

- Channel displacement or flash cut

- Ability to utilize other funding

There are other factors which also must be considered that may or may not be associated with the point system such as coordination of the digital facility with foreign governments.

6 Eligible Equipment and Cost

The basic transmission system for digital operations involves either generating an 8-VSB signal or processing it to achieve the transmitted signal. GBC has an extensive background

with many transmitter manufacturers as well as familiarity with design tradeoffs between complexity, performance, cost, and reliability.

As such, GBC would include the following equipment for reimbursement:

Transmitters—regenerative signal only (i.e. transmitters that provide error correction through methods such as Reed Solomon and Trellis coding). GBC believes that no specific methodology should be dictated but let the marketplace decide. The cost of regenerative transmitters has decreased significantly over the past 3 years and the advantages of creating a “clean” signal outweigh possible interference situations for heterodyne re-transmission.

Transmission line—Most transmission line can be re-used if the age and physical condition of the transmission line is adequate. So GBC would favor the re-use of transmission line where possible. However, any transmission line that is over 20 years old should be replaced.

Antennas—For flash cut scenarios, in nearly all cases the existing analog antennas will pass the 8-VSB signal with little or no degradation. Here again, the age of the antenna and physical condition are factors and if the age of the equipment is over 20 years old, then it should be replaced.

Encoders/multiplexers/PSIP Generators/Receivers—For Class A or LPTV facilities, an encoder, multiplexer, PSIP generation scheme are necessary to take a video and audio signal and convert them to a digital transport stream for the transmitter system to use. In the case of a translator, an 8-VSB receiver or analog receiver is required to first obtain a signal for processing. If an analog receiver is used, it is GBC’s opinion that a justification and showing that no 8-VSB signal is available should be required.

Studio-Transmitter links—For Class A and LPTV or for translators that receive their input signals via microwave, the costs of a single transmitter and receiver (i.e. non-redundant) should be included. These costs should only be included for reimbursement if the encoding and multiplexing/PSIP equipment is located at the studio.

Test Equipment—Test equipment is a necessary item to ensure the signal transmitted meets FCC requirements. Test equipment budgets can run from large amounts to very small amounts. The basic requirements for determining FCC compliance essentially consist of a spectrum analyzer and power meter. Since these tools are general purpose, GBC would propose to allow a certain fixed amount for each licensee (based upon the number of stations the licensed since the test equipment can be shared among stations) that would partially help in the purchase of these items. The amount could be roughly 25% of the cost of equipment that could be listed as part of approved test equipment and then graduated above that depending on the number of stations operated by the licensee.

Each of the above items should have a limit placed upon them based upon a survey of manufacturers. In addition, a total equipment limitation should be placed upon each station. Based upon the number of stations needing assistance and the total amount of

funding covered by this program, it is estimate that a number between \$25,000 and \$75,000 should be the maximum allowed for a single station. If a distributed transmission system is used or multiple program streams from different primary signals (in the case of translators) per single transmitter are proposed, a bonus factor of funding should be applied to encourage the new technology where spectrum efficiency situations are important such as congested RF communications sites.

The following equipment and other costs should be excluded for the primary funding program. In case all of the funds are not allocated in the first two years of submittals these costs could become part of a second round of funding.

Installation costs—Much of this scope of work is often supplied by volunteer efforts or by the station manager/owner.

Towers—Towers are typically a very long replacement cycle and as such last longer than most of the equipment being purchased.

Building costs and land acquisition or similar costs—For those stations already broadcasting in analog format, it can be assumed that space for at least one digital transmission system will already be available. For those stations that have digital companion channels, there will be a time to transition from analog operation to digital operation and to exercise great care in their building facilities. The costs associated scope of new buildings, land acquisition or leasing additional space can be large and thus the financial size of the funding program does not appear to support these efforts. This set of expenses would also include transmission system support equipment like transient protection, voltage regulators, batteries, solar panels, dehydration systems, ground systems, AC distribution, and cooling systems.

Engineering & Planning costs—Much of the business model options and planning for digital operations have consolidated over the past 3 years resulting in a few operational block diagrams that may have several variants. The exception to this is the required cost of the FCC application to flash cut, displace to a new channel, or implement a digital companion channel. As such, the engineering costs to support the application should be reimbursable up to a proposed limit of \$1500.

7 Application Selection Process

GBC favors a web-based user-friendly application process that contains a system of checks and balances as part of the approval process regarding verification of reimbursable expenses. Web-based user-friendly application forms using an administrator with experience and expertise in prioritizing grant applications and mitigating waste, fraud, and abuse in public benefit programs would be a benefit to the Program.

It is GBC's opinion that the uniform grant methodology will not meet the overall program need and will not supply enough funds for those stations needing larger funding amounts. Neither will a first-come, first-serve approach because constraints upon the resources of the staff of the

station may result in poor applications or not allow the stations that need it most to receive program funding.

GBC favors a competitive grant program that is a single year based. The funds associated with the program need to be distributed quickly compared to the purchase cycle because of operating cash for smaller stations being significantly less than a comparable full service station that might be able to secure loans.

Ideally, the application process could be decision tree and category of operation based. By selecting a category of operation (flash cut for example) and then selecting a block diagram that most closely matches the proposed transmission system, an applicant could identify the primary pieces of equipment required, submit a list of proposed equipment, check certain boxes that would identify the justification for requesting the equipment, adding other criteria as part of the application. With the number of anticipated applications, an electronic process could better utilize resources allocated by the NTIA, allow more funds to be used for equipment reimbursement and reduce overall program administrative costs.

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Gary White

My name is Gary White and I am the owner and operator of WO6AY in Lebanon, Kentucky.

We provide locally produced programming 24 hours a day, 7 days a week.

We would like to convert to digital and continue providing coverage of our community.

The cost of the digital conversion will be a large capital expense.

At this time I am trying to determine how to fund the conversion.

Our revenue comes from local advertising.

Any assistance from the government would be very helpful.

We are a rural area and the events in our area are not covered by the stations in the larger cities or Louisville and Lexington - each of which are over 60 miles away.

Thank you for your time and consideration in this matter.

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