In the Matter of  
Widelity Report and Catalog of Potential Expenses and Estimated Costs  

GN Docket No. 12-268  

COMMENTS OF  
THE NATIONAL ASSOCIATION OF BROADCASTERS

April 21, 2014
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Summary

A central feature of the voluntary incentive auction envisioned by the Spectrum Act is the requirement that broadcasters that do not elect to participate must be made whole in the repacking process. Broadcasters themselves stand to gain nothing from the repacking that is instrumental to the success of the auction, and they should not be forced to go out of pocket to provide spectrum for wireless carriers. The Commission’s effort to provide information on the tasks and costs associated with relocation is a useful first step to ensuring that broadcasters forced to relocate are reimbursed for all associated expenses. However, the Public Notice seeking comment on the Widelity Report fails to provide any information as to how the Commission will use the report, or how relocating broadcasters will receive reimbursement for all expenses they incur in repacking. Thus, while the Report provides some useful information, the larger point is that the Commission must begin to address significant unanswered questions surrounding the plan and process for relocation and reimbursement.

The Widelity Report itself generally reinforces many of the points and supports many of the suggestions NAB has made with respect to reimbursing broadcasters in connection with the channel reassignment and repacking processes arising from the incentive spectrum auction. Three central messages should be derived from the Report. First, the range of reasonable repacking-related expenses for which broadcasters must be fully reimbursed under the Spectrum Act is every bit as expansive as NAB and other commenters have suggested, encompassing an extensive array of products and services implicated by the complex channel reassignment and repacking processes. Second, the post-auction transition period will be characterized by so many variables that neither a catalog of potentially reimbursable expenses nor a range of estimated costs can be comprehensive or precisely predictive. Third, to ensure the incentive auction
remains truly voluntary, the Commission must ensure that broadcasters electing not to participate in the auction are fully reimbursed for all repacking expenses. To accomplish this, the Commission must carefully budget relocation costs by optimizing repacking to relocate as few stations as possible.

The Widelity Report acknowledges a wide array of timing and scheduling issues that have the potential to complicate and lengthen the repacking process and to extend the time (and increase the expenditures) required for a station to complete construction of its new facilities. In fact, the Widelity Report identifies timing issues inherent in every significant phase of the channel reassignment and repacking process that, when accumulated, could extend beyond the three-year reimbursement deadline established by the Spectrum Act. That potential for serious timing issues underscores the critical need to afford stations the maximum amount of time possible to engage in the planning, analysis, application, construction, and operational processes essential to implement channel reassignments. Further, it is essential that the Commission’s post-auction transition plan be reasonably comprehensive and detailed, but, ultimately, sufficiently flexible and adaptable to the numerous variables in play.

Unfortunately, the Commission still has not provided answers to a number of critical reimbursement-process-related questions, including what use the Commission intends to make of the Catalog; whether the Catalog’s range of estimated costs will be used to establish a firm upper limit on reimbursable costs or instead merely to provide guidance to affected stations as they navigate the post-auction transition; whether the Commission will use the range of estimated costs to estimate the number of stations the Commission will be able to repack within the $1.75 billion budget established by the Act; how the Commission anticipates providing reimbursement to affected broadcasters; who will be eligible for reimbursement from the Fund; what rules the
Commission will implement to govern the reimbursement process; whether the Commission will adopt a two-stage reimbursement process with a true-up period after the transition is complete, as NAB and other commenters have suggested; and how the Commission will address any shortfall in relocation funding to prevent broadcasters from going out of pocket in repacking. Without answers to these and other critical questions about how the reimbursement process will work, affected industry participants cannot provide truly meaningful comments on the Widelity Report or the proposed Catalog.

1 The Commission has regularly required spectrum licensees to fund the relocation of incumbents operating in the band. For example, in its recent H Block auction, the Commission determined that winning bidders would be required to pay a pro rata share of expenses previously incurred by UTAM, Inc. and Sprint Nextel in clearing incumbents from the band. Service Rules for the Advanced Wireless Services H Block – Implementing Section 6401 of the Middle Class Tax Relief and Job Creation Act of 2012 Related to the 1915-1920 MHz and 1995-2000 MHz Bands, Report and Order, 28 FCC Rcd 9843, ¶¶ 167-173 (2013). This is consistent with the Commission’s Emerging Technologies policies, under which incumbents may be voluntarily relocated following negotiations with new entrants, or involuntarily relocated – in which case the new licensee must guarantee payment of all relocation expenses. See Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, Ninth Report and Order, 21 FCC Rcd 4473, ¶¶ 37-40 (2006); see also Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, First Report and Order and Third Notice of Proposed Rulemaking, 7 FCC Rcd 6886, ¶ 24 (1992).
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COMMENTS OF THE NATIONAL ASSOCIATION OF BROADCASTERS

The National Association of Broadcasters (“NAB”)\(^1\) submits these comments in response to the Public Notice ("Widelity Public Notice") released March 20, 2014,\(^2\) seeking further comment on issues related to the administration of the Spectrum Act’s TV Broadcaster Relocation Fund (“the Fund”).

The Spectrum Act\(^3\) directs the Commission to reimburse broadcast stations affected by the spectrum repacking for their reasonably-incurred costs arising from the post-auction channel reassignment process.\(^4\) To that end, the Act requires that $1.75 billion of the proceeds from the “forward” auction be deposited into the Fund for payment of those costs (as well as certain  

\(^1\) NAB is a nonprofit trade association that advocates on behalf of local radio and television stations and broadcast networks before Congress, the FCC and other federal agencies, and the courts.

\(^2\) See Media Bureau Seeks Comment on Widelity Report and Catalog of Potential Expenses and Estimated Costs, Public Notice, DA 14-389 (released March 20, 2014) ("Widelity Public Notice").


\(^4\) See Spectrum Act § 6403(b)(4)(a).
relocation costs incurred by MVPDs).\(^5\) In its original *Notice of Proposed Rulemaking* in this proceeding, the Commission sought comment on the costs broadcasters and MVPDs are likely to incur in connection with repacking and whether such costs are “reasonable” for purposes of reimbursement under the Act.\(^6\) In response to the *Spectrum NPRM*, NAB suggested, among other things, that the Commission should adopt reimbursement rules and procedures that ensure full, fair, and timely reimbursement for affected broadcasters; that eligible costs should be defined broadly; and that the Commission should develop a non-exhaustive list of costs that should be eligible for reimbursement.\(^7\)

To that end, the Commission engaged third-party contractor Widelity, Inc. (“Widelity”) “to aid the Commission in understanding the process and costs associated with the post-incentive auction transition.”\(^8\) A Public Notice issued September 23, 2013, sought comment on a preliminary “Catalog of Eligible Expenses”\(^9\) developed by the Commission in conjunction with Widelity and intended to identify “categories and descriptions of expenses that . . . broadcasters


\(^{8}\) Widelity Public Notice at 1.

and MVPDs are most likely to incur as a result of broadcaster channel reassignments.” The preliminary catalog did not include a range of estimated costs for the categories it identified.

On December 30, 2013, Widelity produced a report titled “Response to the Federal Communications Commission for the Broadcaster Transition Study Solicitation” together with a “Catalog of Potential Expenses and Estimated Costs” (the “Catalog”). The revised Catalog includes both additional categories of potentially reimbursable expenses identified by commenters in response to the Preliminary Catalog Public Notice as well as a range of estimated costs for each potentially reimbursable expense. In the Widelity Public Notice, the Media Bureau “seek[s] additional input from interested parties on the [Widelity] report and particularly on the Catalog of Potential Expenses and Estimated Costs.”

NAB appreciates the Commission’s continued commitment to exploring the many complex issues surrounding the spectrum auction, repacking, and administration of the Fund, and it remains committed to assisting in that process. To that end, NAB submitted comments in

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10 Preliminary Catalog Public Notice at 2.

11 Widelity Public Notice at 1 (“This second iteration of the Catalog includes, for the first time, Widelity’s suggested prices, or range of suggested prices, for many of the Catalog items.”); id. at n.8 (identifying categories of potentially reimbursable expenses added as a result of comments received in response to the Preliminary Catalog Public Notice).

12 Widelity Public Notice at 1.

13 The Widelity Report observes that NAB and other industry participants have been “forthright in their observations, helpful, and insightful” as Widelity consulted them “to understand better the issues that may be encountered throughout the post-repaking transition process.” Widelity, Inc., Response to the Federal Communications Commission for the Broadcaster Transition Study Solicitation—FCC13R0003 at 7 (Dec. 30, 2103) (“Widelity Report”) (attached to the Widelity Public Notice).
response to both the *Spectrum NPRM* and the *Preliminary Catalog Public Notice.* Here, NAB reiterates and expands upon certain points and also responds to certain additional matters raised in the *Widelity Public Notice* and the Widelity Report.

**I. The Widelity Report Reinforces NAB’s Conclusion That No Catalog of Reimbursable Expenses Can Be Comprehensive**

In NAB’s view, three overarching messages should be derived from the Widelity Report: (1) the range of reasonable repacking-related expenses for which broadcasters must be fully reimbursed under the Act is every bit as expansive and substantial as NAB and other commenters have suggested; (2) the post-incentive auction transition period will be characterized by so many variables that no catalog of potentially reimbursable expenses can possibly be comprehensive or even largely predictive; and (3) the Commission should carefully budget for relocation by repacking as few stations as possible, including by optimizing repacking solutions upfront, rather than as an afterthought. The Report specifies more than a dozen general categories of transition-related costs and, for each, identifies multiple potential sources of delay, administrative complication, and increased costs. The Widelity Report makes clear that, at every phase of the post-auction repacking and transition processes, broadcasters will face the potential for unanticipated delays and expenses and situation- or station-specific issues arising from a multiplicity of factors outside broadcasters’ control—the universe of which the Commission, despite its best efforts, cannot fully anticipate.

Although it attempts to explain and support the “Catalog of Potential Expenses and Estimated Costs,” the Widelity Report, in fact, *confirms* that broadcaster costs reasonably related

\[14\] *See Spectrum NPRM, 27 FCC Rcd at 12470.*
to the channel reassignment process cannot be generalized, standardized, or predicted in advance. At points, the Widelity Report acknowledges that the Catalog cannot account for every variable or unanticipated situation, that numerous factors are likely, if not certain, to affect stations’ costs, and that, as a consequence, a definitive catalog of costs is impractical and unworkable. As the Notice itself declares: “[T]he Catalog is not exhaustive, and inclusion or exclusion of a particular category of expenses should not be read to state or imply that the expense will or will not be eligible for reimbursement.” NAB wholeheartedly agrees that the proposed Catalog cannot possibly be exhaustive in scope and should not be used to limit or restrict reimbursement.

Although the Catalog cannot be treated as exhaustive, NAB appreciates the Commission’s efforts to revise the preliminary Catalog to include some additional categories of

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15 As Widelity admits, its Catalog “does not cover every expense for every situation and … is not an exhaustive list of expenses that may potentially qualify for reimbursement.” Widelity Report at 71.

16 Widelity Public Notice at 1. It is particularly important that the Catalog not be treated as “exhaustive” if the Commission intends to release a “final Catalog of Eligible Expenses and Estimated Costs . . . prior to the auction.” Id. (emphasis added). If the Catalog were treated as a firm limitation on reimbursable expenses, changes to the “Catalog” prompted by comments on the Widelity Public Notice theoretically could limit broadcasters’ right to reimbursement from the Fund. If so, individual stations would be denied a full opportunity to demonstrate that they incurred reasonable repacking-related costs that are not listed in the Catalog but nevertheless should be eligible for reimbursement under the Act.

17 As NAB explained in response to the Preliminary Catalog Public Notice, each station affected by repacking will face a unique set of circumstances particular to its own current and future operations, current and future equipment, geographic location, weather and climate, market conditions, tower site location and design, tower crew availability, and transition process—circumstances that simply do not lend themselves to cataloguing. See NAB Comments, GN Docket No. 12-268 (Nov. 4, 2013) (“NAB Preliminary Catalog Comments”) at 5, 13-14.
costs associated with channel reassignments (such as new RF exposure studies necessitated when the RF environment at a tower site changes and also costs associated with tower upgrades necessitated by the more stringent requirements implemented by Revision G of the ANSI/TIA-222 standard). Nevertheless, a host of categories of expenses that NAB previously identified are entirely absent, including: new controllers; equipment to change translator input channels; land for new towers or facilities; contractual liability to a tower landlord or other site users; differences in tower rent; new or modified power plant equipment (including generators); the extension of electricity to a new site; new or modified STL and ICR facilities; moving costs; construction performance bonds; legal fees in connection with zoning, environmental, and historical preservation compliance issues, real estate, and tax advice; expenses to ensure delivery via microwave or fiber to cable headends or satellite local receive facilities that are no longer reached by new facilities or that are necessary on a temporary basis to bridge a gap in full power operations; replacement of wireless microphones, interruptible foldback, and headsets that are displaced from now unused TV channels; additional or “bridge” insurance; tax consequences (e.g., depreciation schedules rendered inaccurate); and grant-related expenses (e.g., storage costs for equipment mandated to be retained for the life of the grant but rendered unusable by repacking or granted funds that must be reimbursed due to repacking).

Even if the Catalog is revised to include each of these categories, though, the fact remains that the actual costs likely to be incurred by individual broadcasters cannot be generalized since

18 NAB’s comments in response to the Preliminary Catalog Public Notice identified numerous categories of potentially reimbursable expenses that were not reflected in the preliminary catalog. See NAB Preliminary Catalog Comments at 6-11. The revised Catalog includes some, but not all, of the categories listed in NAB’s Catalog Comments.

19 See NAB Spectrum Comments at Appendix A.
every station’s repacking-related costs will reflect station-specific idiosyncrasies and situation-specific costs and potential delays. Nevertheless, NAB reiterates its agreement that an illustrative, non-exhaustive list of eligible expenses can provide useful direction to affected broadcasters—so long as the Commission makes clear that no “catalog” is intended to limit stations’ right to reimbursement for reasonable reassignment-related costs.

With respect to the ranges of estimated costs included in the revised Catalog, NAB observes that certain, if not most, of the ranges appear to be optimistic, but not wholly unrealistic as a general matter. The range of prices for a new transmitter appear particularly optimistic, since the stated range is also to include installation, a new mask filter, and proof of performance testing. Also on the low end are the prices provided for exciters, combiners, interim antennas (for which the Catalog appears primarily to contemplate rentals), and medical facility notifications.

Furthermore, creating a catalog of prices is of limited utility where the equipment at issue

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20 See also NAB Preliminary Catalog Comments at 5 (“The Commission must recognize that every station’s needs, costs, and circumstances in the repacking will be different—there is no normalized bell curve of standard transmission facilities. . . . . It follows that a ‘cookie-cutter’ approach to reimbursement is not practical and will not lead either to the reasonable and efficient administration of the Fund or to full and fair compensation for broadcast stations electing to remain on the air.”).

21 See NAB Spectrum Comments at 55 & Attachment A (proposing a non-exhaustive “list of ‘hard’ and ‘soft’ costs that should be eligible for reimbursement” but noting that there may be unlisted expenses that nevertheless are “justifiable expense[s] that should be eligible for reimbursement”); NAB Preliminary Catalog Comments at 6 & Attachment A (resubmitting NAB’s non-exhaustive list).

22 NAB appreciates Widelity’s diligent efforts to consult “TV broadcast group engineers, radiofrequency and structural engineers, suppliers, support companies, manufacturers, attorneys, and network engineers” in an effort to establish a range of costs that accurately reflects ordinary market prices and conditions. Widelity Public Notice at 1; see also Widelity Report at 7.
or the services required are customized. The Widelity Report notes, for example, that “[w]hile there are certain ‘catalog’ antenna designs, most antennas are custom made for a TV station’s particular requirements.” Customized equipment, by its very nature, is not amenable to a list price or cataloging. For these reasons and others NAB has explained throughout this proceeding, the proposed Catalog can and should be used as a source of guidance but cannot override the Act’s unmistakable mandate that the Commission must reimburse all “costs reasonably incurred by” broadcast licensees in connection with the channel reassignment process.

II. Fundamental Questions Remain Unanswered Regarding Reimbursement for Relocation Expenses

Neither the Report nor the Widelity Public Notice answers or even acknowledges some of the most critical reimbursement-related questions that have been raised by NAB and other commenters in this proceeding. Neither provides broadcasters (and other potentially affected entities) with essential information about the role the Commission intends the Catalog to play in the reimbursement process. Among the questions raised—but not answered—by the Widelity Report are the following:

1. What use does the Commission intend to make of the Catalog?
2. Will the “range of estimated costs” identified in the Catalog represent

23 Widelity Report at 11. See also NAB Preliminary Catalog Comments at 14-17.

24 Cf. Widelity Report at 41 (noting that interviews with industry participants enabled Widelity to obtain “current list prices for relevant equipment and services from equipment manufacturers and service providers” (emphasis added)).

mere guidance as the Commission considers the reasonableness of costs actually incurred by individual broadcasters, or does the Commission intend to use the “range” to establish a firm upper limit on reimbursable costs, notwithstanding the costs actually incurred by an individual station? The former may be useful in establishing a framework for estimated capital advances for repacking expenses; the latter would be flatly contrary to Section 6403(b)(4)(a)(1) of the Spectrum Act.

3. Does the Commission intend to use the range of costs to estimate the number of stations that it will be able to repack within the repacking budget established by the Act? Because the range of costs appears at least somewhat optimistic, this approach would result in an optimistic prediction of the number of stations that could be repacked.\(^\text{26}\)

4. How does the Commission anticipate providing reimbursement to broadcasters in keeping with the mandate of the Spectrum Act? How will broadcasters submit requests for reimbursement? Still unanswered are critical questions about the process the Commission intends to follow to ensure that affected broadcasters (and others) are fully reimbursed in keeping with the Act.

5. Who will be eligible for reimbursement? Only those broadcasters who are involuntarily repacked, or any station whose facilities are affected by the repacking process even indirectly (such as a shared-antenna arrangement in which one tenant is assigned to a new channel, necessitating that both tenants acquire new antennas)?\(^\text{27}\) Any station, including radio stations, affected by repacking, even if not relocated by the process itself, should be fully reimbursed for its reasonably-incurred expenses.

6. What rules will the Commission implement to govern the reimbursement


\(^{27}\) As just one illustration of this point, the Widelity Report notes that the potential stacking of antennas will require that the bottom antenna be “significantly strengthened to support the weight and wind loads of the top antenna,” which in turn could “significantly increase the weight on the tower, raising the possibility of structural modifications to accommodate antenna replacement.” Widelity Report at 28. In such a scenario, all costs incurred by the stations affected should be subject to reimbursement, even if all affected stations are not assigned to new channels.
process, the submission of expenses, the administration of the Fund, and the like?\textsuperscript{28}

7. Will the Commission adopt a two-stage reimbursement process with a “true-up” period at the end of the transition process, as suggested by NAB and several other commenters?\textsuperscript{29}

With respect to the first two of these questions, the \textit{Widelity Public Notice} declares that “the Catalog will provide useful \textit{guidance} to broadcasters and MVPDs as they navigate the post-auction transition.”\textsuperscript{30} Does the Commission mean to suggest that the Catalog (including the Ranges of Estimated Costs) is meant to be informative only but will not definitely establish the categories of expenses eligible for reimbursement or set upper limits on the costs of reimbursable products and services? NAB suggests that such a reading of the Catalog is the only permissible one in light of the Act’s make-whole mandate. And if the Catalog is meant to be informative only, NAB has no objection to its use for purposes consistent with the Act’s reimbursement scheme, such as to assist broadcasters in planning for relocation and estimating upfront payment needs, and to assist the Commission in estimating the number of stations that can be relocated consistent with the Spectrum Act’s intent to make relocating broadcasters whole. If, on the other

\textsuperscript{28} It is unclear whether the Commission intends to issue a Notice of Proposed Rulemaking directed to the rules that will govern the reimbursement process. NAB expects that such a proceeding will take place, as the Commission’s failure to engage in a full notice-and-comment rulemaking process would raise serious Administrative Procedure Act issues.

\textsuperscript{29} \textit{See} NAB Spectrum Comments at 51-55 (urging the Commission to adopt and implement a two-stage reimbursement process according to which, at the first stage, affected entities submit estimates of potential repacking-related expenses and receive up-front payments in order to facilitate relocation and, at the second stage, “true up” their actual costs); Comments of the Association of Public Television Stations, Corporation for Public Broadcasting, and Public Broadcasting Service, GN Docket No. 12-268 (Jan. 25, 2013) (“PTV Spectrum Comments”) at 27-29.

\textsuperscript{30} \textit{Widelity Public Notice} at 1.
hand, the Commission intends to use the Range of Estimated Costs to establish a *ceiling* on reimbursable expenses, NAB strongly objects to any proposal that would so significantly limit affected broadcasters’ rights to reimbursement. In any event, the Commission must balance that process with the $1.75 billion repacking budget so as to ensure that all affected broadcasters ultimately are reimbursed for 100 percent of their actual, reasonable expenses, as required by the Act.\(^{31}\)

Without answers to these and other critical questions regarding the structure, rules, and processes that the Commission intends to implement to govern repacking and reassignment and the administration of the Fund, the Commission’s request for “comments on the report” as well as “on the[] suggested prices”\(^{32}\) puts the cart well before the horse. The reimbursement process is rife with uncertainties and will require significant guidance, planning, and management by the Commission, but neither the Report nor the Catalog offers broadcasters any information about

\(^{31}\) The latest version of the Widelity catalog almost appears to take a step backwards on the path toward certainty as to what expenses will or will not be reimbursed to broadcasters as a result of re-packing. The Catalog that was included in the FCC’s September 23, 2013 Public Notice was titled “Catalog of Eligible Expenses” (emphasis added) which at least implied a direct linkage to broadcaster reimbursements for changing channels. Indeed, the title of the September 23, 2013 Public Notice was “Media Bureau Seeks Comment On Catalog Of Eligible Expenses And Other Issues Related To The Reimbursement Of Broadcaster Channel Reassignment Costs” (emphasis added) and squarely addresses the reimbursement topic. The updated Widelity catalog under consideration in the instant Public Notice is titled “Catalog of Potential Expenses and Estimated Costs” (emphasis added). The Public Notice itself sets up this change in focus noting that “inclusion or exclusion of a particular category of expenses should not be read to state or imply that the expense will or will not be eligible for reimbursement.” Having essentially proclaimed that the question of eligibility for reimbursement is out of scope, the Public Notice then goes on to advise that “[a] final Catalog of Eligible Expenses and Estimated Costs will be released prior to the auction” (emphasis added), but makes no mention of the Commission’s process for seeking comment on any proposed processes or mechanisms for reimbursement.

\(^{32}\) *Widelity Public Notice* at 1.
how the Commission intends to address critical reimbursement-process-related issues. For broadcasters to be positioned to fully address the issues raised by the Widelity Report, the Commission must first inform broadcasters how the reimbursement process will work.

III. The Widelity Report Underscores the Significant Potential for Delay and Unanticipated Costs in the Reassignment and Transition Processes

Although the Widelity Report expresses optimism that “the transition construction process can be achieved,” the Report acknowledges numerous timing and scheduling issues that have the potential to complicate and lengthen the repacking process and to extend the time a station requires to complete construction of its new facilities—and thereby to affect each individual station’s repacking-related costs. As Widelity concedes, “there are many unknowns.”

A. Numerous Uncertainties Inherent in Channel Reassignment Can Slow the Transition Process and Increase Broadcaster Costs

Among the numerous uncertainties noted in the Widelity Report are the following:

- In the post-DTV transition period, many manufacturers and service providers...

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33 The Widelity Report recognizes that “[t]he reimbursement methodology will have a significant impact on the timing of the repacking process” and that “[t]he requirements of the reimbursement process will be numerous including issuing guidelines of allowable costs, accepting, reviewing and approving cost estimates, monitoring expenditures, reviewing documentation, reimbursing stations, auditing expenses, and managing exceptions to cost estimates.” Widelity Report at 40 (emphasis added).

34 Widelity Report at 7.

35 Widelity Report at 7 (noting that “[t]here are a number of potential bottlenecks in the post-repacking transition processes that may potentially extend the amount of time a station needs to complete construction of its new facilities.”).

36 Widelity Report at 7.
providers have left the market, creating the potential for significant shortages in resources. See Widelity Report at 8 (noting that, following the DTV transition, there has been “virtually no ongoing investment in new antennas and transmitters,” that “[t]he marketplace has been depressed for several years and existing equipment has not reached the end of their useful lives,” that “US demand for antennas and transmission equipment has stagnated, which in turn has created a downturn for manufacturers,” and that “[b]ecause of the drop-off in work,” it has been “hard to keep talent in the industry”).

- There is a marked shortage of skilled and experienced tower crews, RF engineers, broadcast engineers, and other essential service providers. See, e.g., Widelity Report at 8 (noting that the post-DTV transition downturn in demand has limited the number of “tower crews skilled at working on tall complex towers, as most jobs now are simply repair and maintenance issues”); id. at 9 (“[t]here are a limited number of qualified tower crews, no more than 14, capable of working on complex and tall towers,” and as a result, “there is likely to be more work than these crews can handle in a timely fashion”); id. at 9 (“[t]here are a limited number of RF Engineering resources in the country and these resources will be stretched if many channels require analysis at the same time”).

- Revision G to the Electronic Industries Alliance/Telecommunications Industry Association RS-222-G “Structural Standards for Antenna Supporting Structures and Antennas,” which established new, more stringent standards for steel tower structures used to support antennas, is likely to require additional structural work (and attendant time) for older towers as well those on which antenna or line loading will change as a

37 See also Widelity Report at 9 (noting that “[s]ome transmitters in use are ‘orphaned,’ meaning the manufacturer is no longer in business or parts are unavailable, making re-tuning of existing equipment impractical” and necessitating installation of a new transmitter).

38 Other interviewees suggested that only 5 to 10 tower crews have the skills necessary for work on tall or complex towers (Widelity Report at 18), a number consistent with the figures contained in NAB’s comments in response to the Preliminary Catalog Public Notice. See NAB Preliminary Catalog Comments at 37-38 n. 51; see also, e.g., Comments of ABC Television Affiliates Association, CBS Television Network Affiliates Association, FBC Television Affiliates Association, and NBC Television Affiliates (Jan. 25, 2013) (“Affiliates Spectrum Comments”) at 51-52. The shortage of qualified tower crews is likely to be a significant factor in both the timing and cost of channel reassignment for many stations. Widelity’s own case studies do not anticipate or consider additional time necessary to schedule tower crews in light of the limited number of crews and the likely demand, as discussed more fully below.
result of changes in channel assignments.\footnote{Widelity cites unspecified “industry sources” for the proposition that only “30% of towers are currently compliant with Rev. G.” Widelity Report at 14.} See, \textit{e.g.}, Widelity Report at 9; \textit{see also id.} at 13 (observing that Revision G “is a significant issue that will affect the timing and cost of broadcasters’ relocation to new channel assignments post-transition”).\footnote{NAB made this very observation in its comments in response to the \textit{Preliminary Catalog Public Notice}. \textit{See} NAB Preliminary Catalog Comments at 7-9.} In some cases, structural issues might even necessitate a total tower replacement.\footnote{Widelity Report at 14.}

- The precise configuration of post-repacking channel assignments could have a significant impact on timing issues. If, for example, “many stations voluntarily tak[e] auction proceeds to go to VHF from UHF, that could result in significant tower reconfigurations, thus diverting manufacturer and service provider resources from the stations that are involuntarily repacked.”\footnote{Widelity Report at 8.}

- “[T]he analog LPTV sunset in 2015 will further put pressure on scarce resources as stations require support to make channel moves and to meet DTV transition requirements.”\footnote{Widelity Report at 8.}

- The local zoning application and approval process likewise is highly unpredictable and could be the source of significant delays outside broadcaster (or Commission) control, although the Widelity Report does no more than acknowledge that the process can “add significantly to a timeline” and that “[t]imeframes associated with zoning and planning [v]ary widely from municipality to municipality.”\footnote{Widelity Report at 16.} Widelity offers no evidence-based \textit{estimates} of the actual time required to complete the zoning process.

- The construction permitting process is “highly unpredictable.”\footnote{Widelity Report at 10. NAB agrees. \textit{See}, \textit{e.g.}, NAB Preliminary Catalog Comments at 25-26.} (continued . . .)
Tower work “will have to be coordinated around critical ratings periods” for stations that share tower space, including those that share tower space with FM radio stations.\textsuperscript{46}

Demands on scarce resources must be scaled and managed to avoid a “bunching” of requests, which can lead to delays (and increase costs).\textsuperscript{47}

Even the most conservative of timetables for repacking are inherently uncertain. As Widelity admits, “[e]ven with the best-laid plans, there may be delays due to unforeseen events such as manufacturer defects, wrong parts, incomplete or incorrect documentation of towers and existing installations, acts of God, and other surprises.”\textsuperscript{48}

These issues and numerous others mentioned in the Widelity Report underscore that every phase of the transition process surely will raise timing and logistical issues that will make it difficult, if not impossible, to predict with certainty either the time required to complete the transition process or the costs that affected stations will reasonably incur. Even if broadcasters and the Commission are aware of and prepared to consider each of these issues, there is much in the post-repacking transition process that simply cannot be anticipated and cataloged. The large number of variables will make it exceedingly difficult for broadcasters (who will not know their final channel assignments until the Commission releases its repacking plan) to engage in “significant pre-planning.”\textsuperscript{49}

\(\ldots\) continued\)

\textsuperscript{46} Widelity Report at 10.

\textsuperscript{47} Widelity Report at 9; \textit{see also id.} at 10 (although antenna manufacturers can increase product to meet demand, “orders must be spread out”).

\textsuperscript{48} Widelity Report at 8.

\textsuperscript{49} Widelity Report at 9; \textit{see also id.} at 11 (suggesting that “[p]rior to receiving their new channel allotments, station groups and individual stations may make preliminary plans for the post-repacking transition”).

(continued . . .)
And if stations did pre-plan and pre-order equipment, would those sunk costs be reimbursed? The Widelity Report notes that stations can take steps to expedite the acquisition of equipment for the transition but that “ordering equipment in advance of a CP grant would be of some risk.” If a broadcaster engages in such “expeditious” conduct with the permission or at the request of the Commission, but finds that “unanticipated complication[s]” require changes to the equipment, will the costs of those changes be reimbursable? If no, then stations will have no incentive to engage in pre-planning or to expedite the ordering of essential equipment, because those investments may have to be abandoned. That scenario would only worsen the already-serious timing issues arising from unpredictable manufacturing timeframes and the shortage of qualified tower crews, engineers, and other service providers.

On the other hand, the Widelity Report does suggest several steps the Commission could take to streamline the transition process, minimize potential delays and administrative complexities, or facilitate cost savings. For example, Widelity urges the Commission to “consider engaging a contractor to assist in managing disbursements from the Fund,” both in order to “manage the Fund in a fiscally prudent manner” and to minimize the potential for

(. . . continued)

50 Widelity Report at 13.


52 The Widelity Report also urges station groups to “consider entering into Master Service Agreements (MSA) with minimum purchase requirements for equipment and services from vendors.” Widelity Report at 38. Again, stations will have little incentive to enter into MSAs and commit to the purchase of equipment that ultimately may not be “placed into service” if they are not assured that those costs will be reimbursed.
“fraud, waste and abuse.” NAB fully endorses that suggestion; in fact, it has made precisely the same recommendation in its prior comments, as have other commenters. The Widelity Report also urges the Commission to develop and release its application processing software in advance of the announcement of channel reassignments, a suggestion which NAB has previously advanced. In other instances, however, Widelity’s suggestions are impractical. By way of example, the suggestion that stations “creat[e] an equipment exchange” in order to save costs would, in fact, add more time and complexity to the process of identifying and obtaining necessary equipment.

In any event, demand for necessary products and services within the short timetable established by the Act is likely to add to the enormous potential for delay and complication inherent in the complex channel reassignment process. As Widelity put it, “depending on the number of stations that are required to move channels or choose to move, there will be significant demand on a finite number of skilled, trained, and experienced resources.” The Commission must remain mindful of those demands and the costs and logistical difficulties they are likely, if not certain, to impose on broadcasters and the Commission alike. For all of the reasons noted in the Widelity Report and outlined above, it is critical that the Commission’s

53 Widelity Report at 40.
54 See, e.g., NAB Spectrum Comments at 60-62; Affiliates Spectrum Comments at 49.
55 Widelity Report at 16.
56 See NAB Spectrum Comments at 17-18.
57 Widelity Report at 39.
58 Widelity Report at 9.
post-repacking transition plan be reasonably comprehensive and detailed, but, ultimately, flexible and adaptable to the significant number of variables in play.

B. Potential Timing Issues in Each Phase, When Accumulated, Could Extend the Transition Process Beyond the Three-Year Statutory Reimbursement Deadline

The Widelity Report identifies timing issues inherent in every significant phase of the channel reassignment and transition process, including tower analysis,\(^59\) environmental review,\(^60\) antenna structure registration,\(^61\) zoning and permitting,\(^62\) construction permit preparation and processing,\(^63\) interim facility planning and preparation,\(^64\) tower work,\(^65\) broadcast field

\(^{59}\) Widelity Report at 14 (“Guy wire replacement for large towers can take up to 4 to 6 months just to obtain new guy wires,” and “[t]he installation can take significant additional time after that.”).

\(^{60}\) Widelity Report at 14 (noting that environmental assessments “can be a source of delays for data gathering analysis”).

\(^{61}\) Widelity Report at 15 (noting that processing of an ASR “can take 2 weeks to several months depending on the nature of the change,” that new environmental requirements and a notification period for certain modifications “will add to complexity and processing time,” and that “[w]aiting for the grant of an ASR will cause the CP application to be on hold”).

\(^{62}\) Widelity Report at 16 (noting that zoning and permitting issues “can add significantly to a timeline” when tower extensions or addition or replacement of equipment are necessary).

\(^{63}\) Cf. Widelity Report at 16 (suggesting that preparation of “comprehensive application processing software could be fully developed and released in advance of the announcement of the repacking results” in order to minimize delay and uncertainty). NAB has called for just such an undertaking. See NAB Spectrum Comments at 17-18.

\(^{64}\) Widelity Report at 16-17 (noting, among other things, that “[t]he demand for adding interim antennas and transmitters will put additional stress on tower and installation services”).

\(^{65}\) Widelity Report at 18-20 (acknowledging potential delays occasioned by the shortage of skilled tower crews, limitations on the availability of helicopters, and challenges inherent in tower work at remote sites). With respect to tower work that requires use of helicopters, the Report notes that “[h]elicopters can be hard to schedule due to fire suppression demand.” Id. at (continued . . .)
engineering, RF engineering, structural engineering, transmitters, transmission lines, antennas, lease negotiation, issues related to multi-tenant towers, and international

(. . . continued)
19; see also id. at 10 (discussing “timing and deployment implications due to weather and seasonal influences in certain areas”). In addition, work on urban towers that requires the use of helicopters will require “extensive planning and permitting,” which “can take a year or more.” Id. at 19.

66 Widelity Report at 20 (observing that approximately 30 broadcast field engineers are available in the United States and that constraints on their availability caused by competing demands for their services could result in delay).

67 Widelity Report at 21 (“We estimate that there are approximately 35 qualified RF consultants, only half of which are positioned to handle more than 5 or 10 stations at a time.”).

68 Widelity Report at 21 (“There are a limited number of structural engineers experienced with broadcast towers”; as a result “a maximum of 40 structural analyses can be done a month in the United States”). That limitation could produce significant delays in the repacking and transition process. Assuming a hypothetical in which 400 stations are repacked, if only half of those stations require a structural analysis, it will take five months for the analyses alone to be completed.

69 Widelity Report at 21-24 (noting the limited availability of parts necessary to “support wholesale replacement of numerous solid-state transmitters needing new channels” as well as the need to replace mask filters, which are channel-specific, and cautioning against the possibility of delay if new equipment orders are “bunched”).

70 Widelity Report at 25-27.

71 Widelity Report at 27-31 (noting the need to “smooth out” the ordering process). Although the Report states that Widelity does not “anticipate major bottlenecks for television antenna supply,” id. at 31, NAB notes that recent layoffs at suppliers such as ERI could produce delays or otherwise limit suppliers’ ability to respond to the demand for post-repacking equipment. See “FCC Auction Taking Toll on TV RF Vendors” (Mar. 13, 2014), available at <http://www.tvnewscheck.com/article/74793/fcc-auction-taking-toll-on-tv-rf-vendors?ref=search>.

72 Widelity Report at 31-32 (noting that approximately “15% to 20% of stations lease tower space for their antennas” and that “[i]f contractual changes to a lease agreement are required to accommodate a channel change, such negotiations can potentially delay the planning and decision-making timeline for stations and station groups”); id. at 10 (observing that “[n]egotiations with site and tower owners will add variability to a station transition process” (continued . . .))
coordination. The many potential sources of delay are summarized in the table below.

**Widelity Repacking Transition Timeline**

<table>
<thead>
<tr>
<th>Phase of Repacking Transition</th>
<th>Timetable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and initial steps</td>
<td>Uncertain; “will vary depending on the complexity of the installation”</td>
</tr>
<tr>
<td>Structural analysis of towers</td>
<td>4-6 weeks</td>
</tr>
<tr>
<td>Tower mapping</td>
<td>6-10 weeks</td>
</tr>
<tr>
<td>Tower modification—preparation of materials</td>
<td>4-6 weeks</td>
</tr>
<tr>
<td>Tower modification—installation</td>
<td>4-6 weeks</td>
</tr>
<tr>
<td>Guy wire replacement—order equipment</td>
<td>4-6 months</td>
</tr>
<tr>
<td>Guy wire replacement—install</td>
<td>“significant additional time”; “can be exceptionally long and difficult due to co-located towers that require interleaved guy wires”</td>
</tr>
<tr>
<td>Environmental assessment / historical or tribal consultation (if necessary)</td>
<td>“will add time to any process prior to filing the CP application”</td>
</tr>
<tr>
<td>Antenna structure registration processing</td>
<td>“2 weeks to several months depending on the nature of the change”; new requirements and a notification period “will add complexity and processing time”</td>
</tr>
<tr>
<td>Zoning and permitting</td>
<td>Variable and uncertain, but “can add significantly to a timeline”</td>
</tr>
<tr>
<td>Construction permit application preparation and processing</td>
<td>Potential for “delay and uncertainty”</td>
</tr>
<tr>
<td>Helicopter—planning / permitting (urban towers)</td>
<td>1 year +</td>
</tr>
<tr>
<td>Helicopter—actual lift</td>
<td>Uncertain given limited window (sunrise – 8:00 a.m.)</td>
</tr>
<tr>
<td>Broadcast field engineering—installation</td>
<td>3-5 days; but only 30 qualified field engineers in the U.S.</td>
</tr>
<tr>
<td>RF engineering</td>
<td>Must be sequenced; approximately 35 qualified engineers available but only half that number can handle more than 5-10 stations at a time</td>
</tr>
</tbody>
</table>

(. . . continued)

because “negotiations are unpredictable in length and may cause uncertainty in the timing of the process”).

73 Widelity Report at 32 (noting that work on multi-tenant towers “may be limited to certain hours during the day or to overnight periods, which could slow the transition and increase costs”).

74 Widelity Report at 10 (observing that “[i]nternational coordination with Canadian and Mexican regulatory authorities can be time consuming and will add complexity to the process” for affected stations “if not addressed in some manner prior to the auction”).

- 20 -
If the potential delays in each essential phase of the transition process are considered together, it becomes clear that the transition process easily could extend beyond the three-year timetable for reimbursement set by the Act. If only those phases for which the Widelity Report offers definitive timeframes are considered together, the Report establishes a potential transition process of nearly one year for towers that do not require a helicopter lift and about two years for those towers that do. But that is far more than a “best case scenario.” That obviously incomplete “estimate” does not take into account the dozen additional phases for which the Widelity Report does not even attempt to offer predictions or estimates of likely delay and only cautions that potential delays are “uncertain” but can be “significant.” And, critically, even the phases of “uncertain” duration do not consider constraints and delays due to weather, such as the accessibility of certain sites during only a few months of the year or actual weather events that will inevitably cause delays and rescheduling. The one thing that is virtually certain is that each of the hundreds of stations being repacked will not experience the luck of a “best case scenario.”

The Widelity Report reinforces comments made by NAB and others in this proceeding that the 18-month timeframe the Commission originally proposed for relocating stations is

<table>
<thead>
<tr>
<th>Structural engineering</th>
<th>Must be sequenced; maximum of 40 stations per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmitters—ordering of new equipment</td>
<td>Orders must be placed early and process must be orderly; if orders are “bunched,” delivery delays could result</td>
</tr>
<tr>
<td>Antennas</td>
<td>“Bunching” of orders will cause “delays and difficulty scheduling the work”</td>
</tr>
<tr>
<td>Site owner negotiations</td>
<td>Negotiation of changes to existing lease agreements “can potentially delay the planning and decision-making timeline for stations and station groups”</td>
</tr>
<tr>
<td>Multi-tenant towers</td>
<td>Uncertain; “work may be limited to certain hours during the day or to overnight periods, which could slow the transition and increase costs”</td>
</tr>
<tr>
<td>International coordination</td>
<td>Uncertain; “can be time consuming and will add complexity to the process”</td>
</tr>
</tbody>
</table>
unrealistically short.\textsuperscript{75} In fact, the multiple potential sources of delay and uncertainty inherent in every phase of the transition process create serious concern about whether the channel reassignment and transition processes realistically can be completed within the three-year timetable established by the Spectrum Act.\textsuperscript{76} The potential for these serious timing issues to hinder the transition process underscores the critical need to afford broadcasters the maximum amount of time possible to engage in the planning, analysis, application, construction, and operational processes necessary to implement channel reassignments.\textsuperscript{77} For the reasons NAB and other commenters have explained previously, the Commission should not deem the forward auction complete until final licenses are awarded to winning bidders—which should not take place, at a minimum, until \textit{after} stations subject to repacking file their applications for construction permits to change channels.\textsuperscript{78}

In short, the numerous timing-related issues noted throughout the Widelity Report highlight the importance of affording affected stations as much time as possible to complete the reassignment and reimbursement processes, as well as the need to make appropriate dispensation for stations that experience unforeseen and uncontrollable delays in the transition. For these

\textsuperscript{75} Spectrum NPRM at ¶ 322; \textit{see also} NAB Spectrum Comments at 50; PTV Spectrum Comments at 26-27; Belo Spectrum Comments at 6.

\textsuperscript{76} Spectrum Act § 6403(b)(4)(D).

\textsuperscript{77} \textit{See} NAB Preliminary Catalog Comments at 3 (noting that “a critical step in controlling the costs of relocation is maximizing the amount of time for broadcasters to prepare for repacking”); \textit{id.} at 36-39, 40-41; NAB Spectrum Comments at 49-51; \textit{see also, e.g.}, Affiliates Spectrum Comments at 48 (urging the Commission to “take all possible steps to ensure that involuntarily repacked stations have the maximum possible amount of time to construct their new facilities and still qualify for reimbursement from the Fund”); Comments of Hubbard Broadcasting, Inc., GN Docket No. 12-268 (Nov. 4, 2013) at 13-16.

\textsuperscript{78} \textit{See, e.g.}, NAB Spectrum Comments at 50-51; Affiliates Spectrum Comments at 48.
reasons, it is critical that the Commission take proactive steps to minimize the number of stations that will need to be repacked. In particular, the Commission should optimize its repacking solution upfront, rather than wait until the conclusion of the reverse auction, to ensure that the number of stations forced to relocate is limited to the number that can be fully compensated for their relocation expenses.

IV. Widelity’s Case Studies Emphasize the Potential for Unanticipated Delays and Expenses During Repacking

The Widelity Report concludes with several “case studies” that are intended to illustrate the potential range of repacking-related costs likely to be incurred by broadcasters, but even those “case studies” reveal the potential for costs and delays well beyond the examples Widelity describes. Widelity acknowledges that “the timelines provided [in each case study] are . . . ‘best case scenarios’ that do not account for scheduling issues, weather delays or other factors that would possibly impede the completion of each scenario in a timely manner.” \(^{79}\) That acknowledgement makes the Widelity “case studies” of limited usefulness, as the remainder of the Widelity Report (as well as the many comments submitted by NAB and other industry participants in this proceeding) make plain that scheduling issues and unanticipated delays are almost certain to affect the repacking timetable and related costs. \(^{80}\)

Perhaps most tellingly, in each case study Widelity appears to assume that tower work

\(^{79}\) Widelity Report at 44.

\(^{80}\) See, e.g., NAB Preliminary Catalog Comments at 22 (observing that weather “will be a significant factor in certain stations’ ability to undertake necessary post-auction modifications to their facilities” and pointing as an example to the tower shared by three television stations in Wausau, Wisconsin that is accessible, on average, less than five months every year).
involving the installation of new equipment (and removal of existing equipment) will be possible without significant delay (e.g., the tower crew will be available exactly when needed), although the Report elsewhere acknowledges that the relative shortage of qualified tower crews can create significant scheduling issues, not to mention scheduling issues due to adverse weather and other unforeseen delays. Both Sample Case Study #1 and Sample Case Study #2 suggest that the stations will be able to “schedule tower crew and field engineers” in a three-month window prior to installation but following the ordering of new equipment. Given the seriously limited number of qualified tower crews (both Case Study #1 and #2 involve “complex towers” over 1,000 feet, meaning there might be as few as a half-dozen qualified tower crews to perform removal and installation), that three-month window is exceedingly optimistic.

Case Study #4 involving Sutro Tower (Widelity Report at 50-53)—a “super complicated site”—reflects a different, but equally problematic timing issue. Widelity’s case study presupposes an 18-month period for obtaining the necessary building permits before beginning tower modifications. That supposition appears to be extremely optimistic, however, given recent experiences, both at the Sutro Tower site and at other tower sites, such as Lookout Mountain outside of Denver. Indeed, even in Widelity’s “best-case scenario,” post-repacking modifications to broadcaster facilities on Sutro Tower will require 41 months—a timetable well outside the Act’s three-year deadline. The Widelity Report does not acknowledge the

81 Widelity Report at 44-46.
83 Cf. Widelity Report at 9, 18.
84 Widelity Report at 53.
disconnect, let alone address how timing issues likely, if not certain, to arise in connection with channel reassignments that affect particularly complex towers will be reconciled with the statutory timetable.

In short, although Widelity’s case studies appear to be designed to illustrate that channel reassignment is feasible (in terms of both timing and cost), even in the most complex of circumstances, the case studies in fact underscore the broader lessons derived from the Widelity Report: They confirm the large number of variables, the significant potential for unanticipated delays and costs, and the unique, situation-specific issues that will come into play for every station affected by the channel reassignment process.

V. Conclusion

For the foregoing reasons, NAB respectfully suggests that the Commission should adopt and implement a repacking and reimbursement process and governing rules built around the principles outlined in the foregoing comments as well as those expressed in NAB’s opening and reply comments to the *Spectrum NPRM* and its comments in response to the *Preliminary Catalog Public Notice*. In particular, the Commission should make clear that its Catalog of Potential Expenses and Estimated Costs is intended only to provide non-exhaustive guidance to affected stations, should undertake a notice-and-comment rulemaking process at the earliest opportunity to address critical issues surrounding the reimbursement process, and should adopt rules and procedures governing repacking, channel reassignment, and reimbursement that are reasonably comprehensive and detailed but, ultimately, sufficiently flexible and adaptable to the significant number of variables in play.
Respectfully submitted,

NATIONAL ASSOCIATION OF BROADCASTERS
1771 N Street, NW
Washington, DC  20036
(202) 429-5430

_________________________
Rick Kaplan
Jane E. Mago
Jerianne Timmerman
Patrick McFadden

Victor Tawil
Bruce Franca

NAB Strategic Planning

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