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FCC Reimbursement Programs:

Background, Accounting, and Financial Considerations for Participants

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1 FCC REIMBURSEMENT PROGRAMS: BACKGROUND[1]

As wireless technology advances and the spectrum appropriate for such uses becomes increasingly scarce, the FCC and other regulators worldwide increasingly face the task of repurposing spectrum for new uses. This requires moving incumbent users to new spectrum, often at significant costs. On the surface, the FCC reimbursement programs, such as the ongoing Broadcast Incentive Auction Reimbursement Program ("TV Repack")[2] and the upcoming Secure and Trusted Communications Networks Reimbursement Program ("Rip and Replace"),[3] seem simple. The reality, however, is more complex.

The FCC has two basic models for reimbursing licensees for costs incurred in moving to new spectrum - the direct reimbursement model and the clearinghouse model. Each model has its own rules and presents its own challenges for parties seeking reimbursement. The following sections explain some of the general features of each model. Figure 1-1 below illustrates the notable features of past and current FCC reimbursement programs.

[1] This white paper is intended to provide general information based on Summit Ridge Group's past experience and current understanding of FCC reimbursement programs. Our comments may not apply to all carriers. Consult with your professional advisors to understand how the situation may impact your particular situation before making significant business decisions.

[2] Information regarding the Broadcast Incentive Auction Reimbursement program can be found at: https://www.fcc.gov/about-fcc/fcc-initiatives/incentive-auctions/reimbursement

[3] FCC, In the Matter of Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs, FCC 20-176, WC Docket 18-89, Second Report and Order (December 10, 2020), https://docs.fcc.gov/public/attachments/FCC-20-176A1.pdf

Figure 1-1: Past FCC Reimbursement Programs

	Rip & Replace	TV Repack	C-band Clearing	AWS Clearing	800 MHz Rebanding/1.9 GHz Clearing
Situation	Congress required the FCC to order carriers to remove certain foreign-made equipment, primarily Chinese-made Huawei and ZTE items, from their networks. ETC recipients of USF support will be required to certify they are not using prohibited equipment one year after the Wireline Competition Bureau issues a Public Notice announcing the acceptance of applications filed during the initial filing window to participate in the Reimbursement Program.	The Broadcast Incentive Auction (FCC Auction 1000) repurposed 84 MHz of spectrum that was previously used for TV channels 38-51 for mobile wireless use. The remaining broadcasters on channels 38-51 were required to "repack" below channel 37 and were reimbursed for their costs of replacing equipment and costs associated with installation and project management.	3.7 GHz to 3.98 GHz, the lower portion of the satellite C-band, was auctioned for mobile broadband use in FCC Auction 107. Incumbent earth stations and satellite operators' expenses will be paid. Additionally, satellite operators may share $9.7 billion in "accelerated clearing payments" if they meet early clearing targets.	AWS spectrum with incumbent point-to-point users (2110-2150MHz/2160-2200) MHz, and BRS users (2150-2160/62 MHz) was auctioned for mobile broadband use and expanded MSS use. Incumbent users submitted clearing expenses to the clearinghouse. Winning licensees and MSS operators were required to reimburse incumbent users before using their licenses.	The FCC launched its 800 MHz reconfiguration program, known as re-banding, to eliminate interference to public safety radio systems and other 800 MHz licensees caused by Sprint's (now T-Mobile) network and other providers. Many of Nextel's interfering licenses were moved to the 1.9 GHz band after clearing 2100 incumbent broadcasters. Sprint paid the relocation costs incurred by public safety and other licensees and its own relocation costs. The FCC also appointed a Transition Administrator to administer the program under its direction.
Method	Direct Reimbursement	Direct Reimbursement	Clearinghouse	Clearinghouse	Clearinghouse*
Start Date**	12/31/2021 (est)	3/30/2017	1/15/2021	9/18/2006	1/1/2004
End Date**	12/31/2022 (est)	7/3/2020	12/5/2023	7/1/2019	4/22/2021
Size	$1.985 billion.	$2.75 billion, increased from $1.75 billion initially.	$3.3 billion to $5.2 billion.	Under $1 billion (est) by NTIA.	Over $3 billion.
Comments	Eligibility increased from carriers with fewer than 2 million subscribers to under 10 million subscribers. The project budget may need to increase. Payment processing likely to continue after the equipment removal deadline.	Invoices will continue to be processed through July 3, 2023.	Payment processing likely to continue after relocation deadlines.	Two clearinghouses, PCIA and CTIA. PCIA stopped in 2013, and CTIA shut down in 2019. FCC indicated remaining reimbursement requests did not need to go through the clearinghouse.	The initial time frame was three years.

* Transition Administrator whose role was similar to the C-band and AWS-3 clearinghouses.
**Indicates the start and end dates to replace equipment, not reimbursement program dates.

Source: Public documents and Summit Ridge Group, LLC analysis.

1.1 DIRECT FCC REIMBURSEMENT MODEL

The FCC uses the direct expense reimbursement process in programs for which Congress has appropriated and designated funds for such reimbursement and given the FCC authority to disburse such funds to third parties. Examples include the TV Repack following the Broadcast Incentive Auction and the upcoming Rip and Replace program. In these cases, the FCC pays reimbursement funds directly to the parties owed. The FCC often publishes a "cost catalog" to provide guidelines for the costs of standard equipment and services that it intends to reimburse, which should set the expectations of third-party applicants prior to purchasing replacement equipment. The reimbursement process can be somewhat cumbersome for those seeking reimbursement. Due to the FCC's need for public accountability in using taxpayer dollars, highly detailed information is required from reimbursement applicants, and invoices, estimates, and totals on hourly billings typically need to match to the penny. To the extent there are differences between the FCC's forms and the practical realities of the equipment procurement process, deviations from the FCC's process may result in rejection or a request for information (RFI) from FCC staff. Other complexities may arise depending upon the unique circumstances of a particular equipment site. For example, to be reimbursed, an invoice covering multiple sites and multiple line items must be divided and uploaded for each site individually.

1.2 CLEARINGHOUSE REIMBURSEMENT MODEL

The FCC generally uses the clearinghouse model when the reimbursement funds are not paid by the government but are instead paid by a third party. This model was used, for example, when FCC license auction winners are required to repay the costs of incumbents moving from the spectrum directly (as opposed to when the FCC pays incumbents' clearing costs from auction proceeds or other designated funds). The AWS clearing and the C-band clearing are instances where the FCC used the clearinghouse model. Similarly, the FCC granted Sprint rights to the 800 MHz band without any payment to the FCC on the condition that it covers the costs of relocating the prior 800 MHz incumbents at its own expense. In the clearinghouse model, the party seeking reimbursement submits its expenses to the clearinghouse. If the auction winners who are obligated to reimburse the costs believe the clearing costs are excessive, they usually have an option to protest, first to the clearinghouse and, if not satisfied, to the FCC, and ultimately to the U.S. District Court for the District of Columbia.

1.3 CONSIDERATIONS: TV REPACK AND RIP & REPLACE

Not only are the mechanics of reimbursement intricate, but they also impact participating broadcasters' and carriers' (collectively "Participants") financials for both financial reporting and tax purposes. The remainder of this article describes the effect of FCC reimbursement programs on the major elements of Participants' financial statements and tax returns.

Television broadcasters had three options for participating in the Broadcast Incentive Auction (FCC Auction 1000) and receiving auction proceeds. First, broadcasters could relinquish their FCC licensees in their entirety and cease broadcasting in exchange for the full value of that license. Second, broadcasters operating on frequencies in the UHF or High VHF band could voluntarily agree to relocate to frequencies in the VHF or Low VHF band in exchange for the value lost in moving to a less desirable broadcast band. Third, broadcasters could relinquish their rights to deliver content over their own exclusive television broadcast channel and, instead, agree to share a single channel with another broadcaster, in which case the sharing stations would share in the value of the relinquished channel.

Conversely, some broadcasters chose not to give up any spectrum in the reverse auction. Following the FCC's Broadcast Incentive Auction, the FCC required such non-participating TV broadcasters to change to new frequencies below Channel 37, known as the repacking process. Changing frequencies often required the purchase of new transmission equipment, the cost of which could be eligible for reimbursement. As of April 8, 2021, Participants in the Reimbursement Fund include 957 repacked full power and Class A TV stations, 873 LPTV/translator stations, 90 FM stations, and 181 MVPDs.[4] The FCC is funding the reimbursement of broadcasters' costs from a budget of $2.75 billion[5] through the TV Repack. Accounting implications of the TV Repack created several non-obvious financial and accounting impacts for broadcasters, discussed further below.

The FCC's most recent reimbursement program, the Rip and Replace program, was motivated by concerns that certain foreign-made communications equipment posed a national security risk to U.S. networks. Before the FCC's December 11, 2020 decision affirming its designation as a national threat, many carriers had noticed that the U.S. government was not comfortable with Chinese-made equipment in U.S. carriers' networks.[6] The FCC finalized its ban on November 22, 2019.[7] Then, following Congress' instructions in Section 2 of the Secure Networks Act, 2021,[8] the FCC effectively ordered U.S. telecom carriers to replace specific foreign-made equipment in their networks, primarily Huawei and ZTE,[9] due to data security concerns. Congress earmarked $1.985 billion as part of the Consolidated Appropriations Act,

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[4] FCC Public Notice, Invoice Filing Deadlines for TV Broadcasting Relocation Fund Reimbursements Begin on October 8, 2021(April 8, 2021). DA 21-404 (p. 1). https://docs.fcc.gov/public/attachments/DA-21-404A1.pdf

[5] Budget was initially $1.75 billion, but Congress later increased it to $2.75 billion.

[6] FCC, *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs – Huawei Designation*, FCC 20-179, PS Docket 19-351, Memorandum and Order, (December 11, 2020) https://www.fcc.gov/document/fcc-affirms-designation-huawei-national-security-threat-0

[7] Jon Brodkin, *FCC Finalizes Ban on Huawei and ZTE Equipment in Universal Service Fund, ARS Technica* (November 22, 2019) https://arstechnica.com/tech-policy/2019/11/fcc-bans-huawei-and-zte-gear-in-us-funded-broadband-projects/

[8] *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, The Federal Register (March 22, 2021) https://www.federalregister.gov/documents/2021/03/22/2021-04692/protecting-against-national-security-threats-to-the-communications-supply-chain-through-fcc-programs

[9] FCC, *List of equipment covered by Section 2 of the Secure Networks Act*, (March 12, 2021) https://www.fcc.gov/supplychain/coveredlist

2021,[10] to fund replacement equipment for eligible carriers. Eligible carriers who are recipients of the Universal Service Fund ("USF")[11] are required to participate, while eligible carriers who do not receive USF support can voluntarily participate. Recently, the FCC proposed increasing the limit on carriers who can participate from 2 million to 10 million subscribers.[12] As with the TV Repack, Rip and Replace also has non-obvious financial and accounting effects that, in fact, may be more significant due to the greater capital intensity of the wireless industry compared to the broadcasting industry.

Participants in FCC reimbursement programs should consider the tax and accounting issues as they undertake the process. Consultants, including Summit Ridge Group, currently support television broadcasters seeking reimbursement for the TV Repack program and expect to support carriers by submitting reimbursement applications to the FCC for the upcoming Rip and Replace program. As with the TV Repack cost catalog, the Rip and Replace cost catalog has a line item for project management that appears to allow carriers to obtain reimbursement for such third-party consulting support.

2 TAX ACCOUNTING: INVOLUNTARY CONVERSION

FCC reimbursement programs are usually designed to help licensees comply with mandates that involve equipment replacement and may be considered "involuntary conversions" by the IRS.[13] With involuntary conversions, according to IRS Publication 544 (Sales and Other Dispositions of Assets),[14] "depending on the type of property you receive, you may not have to report a gain on an involuntary conversion. Generally, you do not report the gain if you receive

[10] H.R. 133 – Consolidated Appropriations Act, 2021 https://www.congress.gov/bill/116th-congress/house-bill/133/text

[11] Background on the Universal Service Fund https://www.fcc.gov/general/universal-service-fund

[12] FCC, *In the Matter of Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, FCC-21-86, WC Docket No. 18-89, Third Report and Order (July 14, 2021) at page 6. https://docs.fcc.gov/public/attachments/FCC-21-86A1.pdf

[13] For a detailed summary for each category treatment, see IRS opinion letter date July 3, 2014 from Andrew J. Kelso, Associate Chief Counsel (Income Tax and Accounting) Office of the Chief Counsel, Internal Revenue Service to Howard Symons, Vice-Chair of the Incentive Auction Task Force, FCC, please refer to the IRS letter dated 7/3/2014. It can be found at: https://www.nab.org/repacking/documents/IRS_Guidance_Regarding_Auction_Proceeds_and_Reimbursement.pdf

[14] IRS Publication 544 focuses on the broadcasters who receive the reimbursement.

property that is similar or related in service or use to the converted property. A gain is not reported because your basis for the new property is the same as your basis for the converted property. The gain on the conversion is deferred until a taxable sale or exchange occurs." IRC § 1033 provided the same guidelines that gain is not recognized if the transaction is an involuntary conversion and if the requirements of IRC § 1033(a)(2) are met. This means:

1) The tax basis of a replacement property purchased due to an involuntary conversion in which the gain is not recognized is the cost of the replacement property less the amount of gain not recognized on the conversion.
2) Taxable losses are recognized at the time of the conversion and are not deferred.
3) Suppose there is a tax loss on conversion. In that case, the replacement property's basis is the adjusted tax basis of the involuntarily converted property decreased by any loss recognized on the conversion and any money received and not spent on qualifying replacement property.
4) When a gain due to conversion is recognized, it increases the asset's adjusted tax basis. A gain for tax purposes is likely to be rare with the TV Repack and Rip and Replace programs because the new equipment will usually be similar or related to the replaced equipment.
5) Usually, the new asset's depreciable life and depreciation method will continue as if the old asset were still in place. But there are exceptions, so Summit Ridge Group advises Participants to consult with a qualified tax accountant regarding tax depreciation and other tax matters described.

3 FINANCIAL REPORTING (GAAP) IMPACTS

When program Participants replace qualified equipment, they are entitled to obtain reimbursements from the FCC. They must replace equipment before the FCC reimburses them through its process. Summit Ridge Group believes the mechanics of the Rip and Replace reimbursement program will be similar to that used for the ongoing TV Repack program.[15] We understand the FCC expects to be ready to start receiving invoices before year-end 2021. Summit Ridge Group estimates reimbursements will begin in early 2022.

[15] Information regarding the Broadcast Incentive Auction Reimbursement program can be found at: https://www.fcc.gov/about-fcc/fcc-initiatives/incentive-auctions/reimbursement

3.1 SHORT-TERM WORKING CAPITAL INCREASES

Participants need to prepare for temporary swings in working capital to fund the process while waiting for FCC reimbursement. Participants will need to promptly submit invoices to the FCC in formats meeting the FCC's exacting specifications to minimize temporary increased working capital requirements. A summary of the effects on cash flow is illustrated below in Figure 3-1.

Figure 3-1: Financial Reporting Impacts of Reimbursement

	Near Term Effect	Long Term Effect
Working Capital Requirements	Increase	Neutral
Reason	Participants must make expenditures before FCC issues reimbursement	FCC will reimburse reasonably incurred expenses

Source: Summit Ridge Group, LLC analysis

Television broadcasters have had varying experiences in the wait for reimbursement. We have observed that the FCC has reimbursed invoices for outside professional services, such as consultants and engineers, the fastest, sometimes within a month of initial submission. Internal time and large equipment invoices often generate the most RFI's, which can take several months to be resolved and often require coordination between accountants, engineers, vendors, and FCC staff.

Some carriers affected by Rip and Replace have already paid to replace their covered equipment and will be in a cash deficit position for at least several more months. The FCC and its administrator, Ernst & Young, have not yet released the precise reimbursement process, but the FCC has passed a Report and Order with some information[16] and has requested feedback on the cost catalog.[17] Government standards for invoices submitted for reimbursement are more exacting and call for more details than typically required for invoices in the commercial

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[16] FCC, *In the Matter of Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, FCC-21-86, WC Docket No. 18-89, Third Report and Order (July 14, 2021). https://docs.fcc.gov/public/attachments/FCC-21-86A1.pdf

[17] FCC, Wireline Competition Bureau Seeks Comment on a Report and Preliminary Cost Catalog and Replacement List to Help Providers Participate in the Supply Chain Reimbursement Program, DA-21-355, WC Docket 18-89, Public Notice, (March 25, 2021), https://ecfsapi.fcc.gov/file/03250783705361/DA-21-355A1.pdf

sector. It will likely require a few months, on average, for carriers to organize their existing invoices, submit them, and receive reimbursement. At the onset of the Rip and Replace process, reimbursements will probably be slow as the reimbursement team ramps up and will become more efficient as the team gains experience. We expect the FCC will allow carriers to submit invoices for reimbursement on a rolling basis.

3.2 BALANCE SHEET: PARTICIPANTS' ASSETS WILL INCREASE

The balance sheet impact is potentially more positive. Participants are replacing older depreciated equipment with new equipment, increasing total assets. In the case of Rip and Replace, the foreign equipment being "ripped" is primarily equipment purchased before June 30, 2020,[18] and would typically have incurred significant depreciation.

The new equipment used to "replace" is equipment that the companies have not yet depreciated. As a result, companies will likely replace the lower carrying value of older equipment with a higher carrying value of the equipment used to replace it. In effect, the Participants boost their balance sheet by recording a new higher value for the replacement equipment.

Summit Ridge Group has observed that some TV broadcasters have also capitalized "soft costs" such as project management, legal, and outside engineering along with the equipment. Capitalizing soft costs would somewhat increase the balance sheet impact of the FCC reimbursement program. Other broadcasters have expensed soft costs and counted the reimbursement as offsetting revenue. We don't have a position as to the appropriateness of either approach.

3.3 INCOME STATEMENT EFFECTS

GAAP does not address the recognition and measurement of government payments specifically. It requires disclosures of the nature, terms, and conditions of the payment and a description of the accounting policy selected. Reimbursement related to an asset is recognized as an extraordinary gain on the income statement. Additionally, reimbursement related to capitalized expenditures for related services is also recognized as an extraordinary gain.

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[18] FCC, *In the Matter of Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, FCC-21-86, WC Docket No. 18-89, Third Report and Order (July 14, 2021). https://docs.fcc.gov/public/attachments/FCC-21-86A1.pdf

FCC reimbursement payments for equipment will likely be treated, on net, as a gain for financial reporting purposes in the transaction year. They will also have higher depreciation expenses than they otherwise would without the program. Due to the gain recognized, net income will likely increase in the year of replacement, but due to higher depreciation in future years, net income will decrease.

4 FCC ACCOUNTING (USOA): RIP AND REPLACE

Before 2017, the FCC required carriers to report their financials using the FCC's Uniform System of Accounts (USOA), [19] which was designed to align carrier accounting methods with ratemaking structures. The FCC used this to calculate pricing for certain items covered by USF. Following the FCC's 2017 streamlining order,[20] price cap carriers can now report to the FCC using GAAP instead of USOA. However, rate of return and price cap carriers not opting for GAAP are still required to use USOA under 47 CFR 32.

Rip and Replace USOA carriers can take advantage of the waiver that allows old (covered) equipment to remain on the balance sheet and depreciate based on the FCC's updated guidelines.[21] Additionally, carriers affected by Rip and Replace will not need to incur an immediate loss for the covered equipment. Carriers will be allowed to take advantage of the waiver permitting carriers to continue depreciating the replaced equipment, as a depreciation expense, based on the FCC's depreciation schedule. See Appendix B for an example of Rip and Replace replacement accounting.

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[19] Uniform System of Accounts for Telecommunications Companies, 51 FR 43499, December 2, 1986, https://www.law.cornell.edu/cfr/text/47/part-32

[20] FCC, Comprehensive Review of the Part 32 Uniform System of Accounts; Jurisdictional Separations and Referral to the Federal-State Joint Board, FCC 17-15, WC Docket No. 14-130, Report and Order (February 23, 2017) https://www.fcc.gov/document/part-32-uniform-system-accounts-report-and-order

[21] FCC, *In the Matter of Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, FCC-21-86, WC Docket No. 18-89, Third Report and Order (July 14, 2021). The FCC updated its guidelines for the upcoming Secure and Trusted Communications Networks Reimbursement Program. Updated guidelines for depreciation expense and amortization schedules for covered equipment are shown on page 44, sections 108-111. https://docs.fcc.gov/public/attachments/FCC-21-86A1.pdf.

5 POTENTIAL LONG-TERM IMPACT

The impact of FCC reimbursement continues well beyond the years of the transactions. Participants have more robust systems with newer technology and potentially lower maintenance and operating costs.[22]

5.1 DEPRECIATION EXPENSE MAY INCREASE

Companies will likely record higher depreciation expenses, for financial reporting purposes, in future years as companies record deprecation on the new equipment. The increased depreciation will likely cause carriers to report lower income for financial reporting purposes in future years. However, most investors will look beyond carriers' lower reported income if they understand it is a result of Rip and Replace (or other FCC reimbursement programs) participation.

5.2 CAPITAL EXPENDITURES MAY DECLINE

Companies are replacing years-old equipment with new equipment, potentially reducing capital expenditures in future years. New replacement equipment pushes back the previously expected future replacement cycle. Depending on the FCC's rules, Participants may be able to upgrade to more advanced equipment while receiving reimbursement for the cost of a "like for like" replacement. For example, many television broadcasters took advantage of the TV Repack program to obtain equipment suitable for future upgrades to television's next generation transmission standard, ATSC 3.0, while receiving reimbursement for like for like replacement and paying the incremental upgrade costs themselves. We expect similar activity with Rip and Replace, as older equipment, perhaps 3G equipment, is replaced with LTE or 5G equipment. While television broadcasters typically spend 2-4% of revenue on capital expenditures per year, carriers generally spend 15-20% of revenue on capital expenditures annually,[23] implying that the Rip and Replace program may have a significantly larger impact on carriers than the TV repack program had on broadcasters.

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[22] Summit Ridge Group understands some broadcasters have realized significant savings in certain operating expenses including electricity costs.

[23] Estimate based on Capital IQ data for public television broadcasters and wireless carriers and Summit Ridge Group, LLC analysis.

5.3 OTHER CONSEQUENCES

To the extent Participants, such as USF recipients with high cost loops,[24] are subject to rate regulation based on return on assets, larger balance sheets will lower reported return on assets, allowing arguments for somewhat higher billing rates than would otherwise be possible. However, the lower return on assets may concern investors and lenders who are unfamiliar with the FCC reimbursement program. Accordingly, management teams are well-advised to explain these issues to stakeholders.

Based on our experience with the TV Repack program, the implication of the Rip and Replace program is that this initiative may materially affect carriers' financial statements for the next decade. Knowing this at the onset of the reimbursement program could allow carriers and stakeholders to better prepare for the future impacts to their financial statements, create more accurate forecasts, and fully capture the narrative behind various ratios.

6 HOW TO PREPARE

We believe Participants in FCC reimbursement programs should consider the following to best prepare:

1) Carefully evaluate the potential need for a short-term increase in working capital while waiting for FCC reimbursement. Addressing working capital requirements may involve increasing credit lines or taking other measures.
2) Coordinate with vendors to agree on quote and invoice formats that will comply with FCC requirements.
3) To minimize the working capital swing, Participants must submit reimbursement applications early and make sure they fit the FCC's exacting requirements. Submitting early also reduces potential exposure should the FCC program run out of funds before

[24] See, High Cost Loop as defined by the Universal Service Administration: https://www.usac.org/high-cost/funds/high-cost-loop/#:~:text=High%20Cost%20Loop%20(HCL)%20support,or%20the%20Federal%20Communications%20Commission

reimbursing everyone.[25] It is possible that the Rip and Replace program will follow the TV Repack program by setting a specific allocation to each “station” or station equivalent. This means the FCC would set a predetermined amount for each station based on estimates from the cost catalog and allow stations to request reimbursement at their own pace.

4) Project the short-term and long-term impacts to tax and GAAP accounting. Inform relevant stakeholders to give them time to process the situation instead of reacting to a surprise down the road.

As mentioned previously, Summit Ridge Group provides consulting support for the submission of FCC reimbursement applications for the TV Repack program. We expect to provide such support for Rip and Replace. Such support has been, and we expect it will continue to be, reimbursable by the FCC. Frequently, outside professional reimbursement support allows a Participant’s internal team to remain focused on their core business and make more accurate submissions that result in faster reimbursement, all at no net cost to themselves. Do not hesitate to reach out to us with any questions.

[25] Congress increased the budget for the TV Repack process and expanded the eligible parties. Should the Rip and Replace budget fall short, in our view, there is a good chance Congress will also increase the budget given national security concerns and potential impact on the digital divide. However, we strongly advise Participants to apply early for reimbursements and minimize the risk of fund depletion and Congress not allocating more money.

APPENDIX A: EXAMPLE OF "RIP AND REPLACE" IMPACT ON GAAP ACCOUNTING (STARTING IN 2021)[26]

Assumptions	Cost	Accumulated Depreciation	Useful Life
Asset before replacement	100	60	10
Asset after replacement	100	0	10

Without Rip and Replace	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
CapEx	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Asset Carrying Value	40.0	30.0	20.0	10.0	100.0	90.0	80.0	70.0	60.0	50.0	40.0
Depreciation	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
With Rip and Replace											
CapEx	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
FCC Reimbursement	(100.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old Asset Carrying Value	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Asset Carrying Value	100.0	90.0	80.0	70.0	60.0	50.0	40.0	30.0	20.0	10.0	100.0
Depreciation (New Asset)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Asset Carrying Value	90.0	80.0	70.0	60.0	50.0	40.0	30.0	20.0	10.0	00.0	90.0

*In 2021, there is a loss from disposal of equipment equal to the net book value of the old equipment that is recognized when the old equipment is taken off the books.

[26] *Source: Summit Ridge Group, LLC analysis*

APPENDIX B: EXAMPLE OF "RIP AND REPLACE" IMPACT ON FCC ACCOUNTING (STARTING IN 2021)[27]

Assumptions	Cost	Accumulated Depreciation	Useful Life
Asset before replacement	100	60	10
Asset after replacement	100	0	10

FCC depreciation schedule for replaced items[1]	
Useful Life	Amortization schedule
0-2 years	1/2 over next two years
3-5 years	1/3 over next three years
6-10 years	1/4 over next four years

Without Rip and Replace	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
CapEx	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Asset Carrying Value	40.0	30.0	20.0	10.0	100.0	90.0	80.0	70.0	60.0	50.0	40.0
Depreciation	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
With Rip and Replace											
CapEx	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
FCC Reimbursement	(100.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Old Asset Carrying Value	40.0	26.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Asset Carrying Value	100.0	90.0	80.0	70.0	60.0	50.0	40.0	30.0	20.0	10.0	0.0
Depreciation (Old Asset)	13.3	13.3	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Depreciation (New Asset)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Depreciation	23.3	23.3	23.3	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Asset Carrying Value	140.0	116.7	93.3	70.0	60.0	50.0	40.0	30.0	20.0	10.0	0.0

- Without Rip and Replace, the asset would continue to depreciate until 2024. In 2025, the carrier would purchase a new asset to replace it.
- Rip and Replace pushes the out-of-pocket capex to 2031.
- As per the FCC's instructions for USOA carriers, the existing asset (the one being ripped) can remain on the books and is depreciated using the schedule listed above.
- The new asset (the replacement) is unaffected by the FCC's USOA instructions and depreciated as usual from $100 over its useful life.
- The differences between USOA and GAAP are that in USOA reporting, the old asset carrying value stays on the books, and the old asset continues to depreciate. Therefore, compared to GAAP, USOA reporting results in greater total assets (for several years) and higher total depreciation.

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[27] *Source: Summit Ridge Group, LLC analysis*

APPENDIX C: SAMPLE REIMBURSEMENT JOURNAL ENTRIES: FINANCIAL REPORTING

Generic accounting journal entries for reimbursement are described, step by step, below. Example Assumptions:

Assumptions	Cost	Accumulated Depreciation	Useful Life
Asset before replacement	100	60	10
Asset after replacement	100	0	10

Step 1. Initial reimbursement allocation: the FCC provides an initial reimbursement allocation after Participants supply cost estimates based on their system configurations. The initial reimbursement allocation ranged between 85.0% and 92.5% of the verified estimated costs from the Participant's initial filing for the TV Repack. No journal entry is needed.

Step 2. Remove the old equipment:

Date	Transaction	Debit	Credit
	Accumulated Depreciation	60	
	Loss (on Equipment Disposal)	40	
	Equipment		100

Step 3. Buy and install the replacement equipment:

Date	Transaction	Debit	Credit
	Equipment	100	
	Cash		100

Step 4. Reimbursement is received from the FCC[28]:

Date	Transaction	Debit	Credit
	Cash	100	
	Gain		100

Summary: The net gain is realized separately from the loss on disposal of the old equipment (covered equipment). The gain is equal to the increase in equipment carrying value (net of depreciation).

[28] For Participants who record the reimbursements depending on where the original invoices were coded to, reimbursements for services invoice are recorded as an offset to expense against the GL account.

APPENDIX D: GLOSSARY

- **3G**: Third Generation of mobile technologies. 3G decreased spectrum costs, enabled more customers to achieve higher data transmission rates (mobile systems: more than 384 Kbps; stationary systems: more than 2 Mbps), and improved efficiency in the use of spectrum. 3G comes in different transmission formats such as W-CDMA, UMTS, CDMA 2000, TD-CDMA, DECT, and Mobile WiMAX.
- **4G**: Fourth Generation of mobile technologies. 4G decreased spectrum costs even beyond 3G. It enables customers to achieve higher data transmission rates – as high as 1GB/Sec.
- **5G**: Fifth Generation of mobile technologies.
- **ATSC 3.0**: A major version of the ATSC standards for television broadcasting created by the Advanced Television Systems Committee (ATSC). ATSC 3.0 is expected to allow TV broadcasters to dramatically increase transmission capacity and their ability to target customer segments.
- **AWS:** Advanced Wireless Spectrum: 1710 to 1755 MHz for uplink and 2110 to 2115 for downlink. In the U.S., this was broken up into six blocks (A-F) that have been subject to auctions since 2006.
- **C-band:** 3.4 to 4.3 GHz (receive) and 4.25 to 6.425 GHz (transmit). Used primarily to satellite transmission and desirable in tropical areas due to its resistance to rain fade. Many countries are considering reallocating the lower portion of the receive band for terrestrial broadband.
- **Clearinghouse Model:** Used when the funds are being paid by a third party, for example, when FCC license auction winners are required to repay the costs of relocating incumbent license holders to the new spectrum.
- **CTIA:** A trade association representing the wireless communications industry in the United States.
- **Direct Reimbursement Model:** Used for programs where Congress has given the FCC authority to pay third parties' incurred costs. The FCC effectively pays the party owed reimbursement funds directly, although the FCC may engage an accounting firm to support its efforts.
- **FCC:** Federal Communications Commission. The FCC is a U.S. government organization established by the Communications Act of 1934 that regulates the communications sector.

- **GAAP:** Generally Accepted Accounting Principles. GAAP is the accounting standard U.S. companies are held to for financial reporting purposes. It is similar but not identical to IFRS (International Financial Reporting Standards).
- **High Cost Loops:** Provides support for the last mile of connection for rural companies in service areas where the cost to provide this service exceeds 115 percent of the national average cost per mile.
- **Involuntary Conversion:** Occurs when your property is destroyed, stolen, condemned, or disposed of under the threat of condemnation, and you receive other property or money in payment, such as insurance or a condemnation award. Involuntary conversions are also called involuntary exchanges.
- **LTE:** Long Term Evolution. A fourth-generation version of GSM with data rates as high as 1 GB/Sec.
- **PCIA:** The Wireless Infrastructure Association (WIA), formerly known as PCIA, is an American trade association for wireless providers and companies that build cell phone towers, rooftop wireless sites, and other facilities that transmit wireless communication signals.
- **Universal Service Fund ("USF"):** A system of telecommunications subsidies and fees managed by the FCC intended to promote universal access to telecommunications services in the United States.
- **Uniform System of Accounts (USOA):** A historical financial accounting system that reports the results of operational and financial events in a manner that enables both management and regulators to assess these results within a specified accounting period. The USOA also provides the financial community and others with financial performance results.