Edge Spectrum, Inc.
W18DS-D, Chattanooga, TN (Fac ID 72218)

Request for Further Waiver of Tolling

Edge Spectrum, Inc. ("ESI"), licensee of W18DS-D, Chattanooga, TN (Fac ID 72218) (the "Station") hereby requests a further waiver of the Commission's tolling rules to allow for an extension of the Station's displacement construction permit (File No. 0000051827) (the "CP"). As described herein, ESI has been working diligently to complete construction of the Station's displacement facilities. Since the Commission granted an extension of the CP, however, ESI has experienced significant and insurmountable challenges obtaining digital broadcasting equipment as a result of the global supply chain disruptions. Despite these challenges, ESI currently expects that the transmitter for the station, which is subject to a pending contract with Comark S010717, will ship on February 4, 2022.

I. Background

The Station is one of many stations licensed to ESI and operated by ARK Multicasting, Inc. ("ARK") that ESI and ARK plan to include as part of a nationwide broadcast and data network using the ATSC 3.0 transmission standard. ARK is developing solutions to use broadcast technology to bridge the connectivity gap in the rural United States. ARK's ATSC 3.0 network will relieve congestion for Internet Service Providers and provide datacasting services for many verticals including distance learning, the connected car market, smart agriculture, telehealth, and over the top video streaming providers. In furtherance of these efforts, ARK recently entered into an agreement with Hewlett Packard Enterprise to manage orchestration of the broadcast environment virtualizing from edge-to-cloud. ARK has also entered into an agreement with General DataTech for staging, burn-in, and station deployments as well as management of the end-to-end environment which optimize operational processes.

ESI and ARK have experienced a number of challenges completing construction of their digital facilities, including: the lack of availability of suitable transmitters, delays in the delivery of antennas, limited installer availability, limited RF engineers, and tower relationships.

ESI and ARK have been working for more than a year to obtain the necessary equipment to enable digital operations for their stations. ESI and ARK originally engaged with Comark, Broadcast Electronics, Anywave, and Technalogix. Although none of these entities had an off the shelf transmitter that fit ARK's specifications, broadcast engineer Rick Goetz marketed that he had a transmitter that would work. ESI and ARK ordered a small batch to test the units in April 2021. The transmitters were committed to be delivered within two weeks. After four months, a single transmitter was delivered. As of this writing, the remaining 6 have not been delivered and Mr. Goetz has informed ESI and ARK that he will not be able to deliver on the original order.

While waiting for the transmitters from Mr. Goetz, Anywave indicated that it had a new transmitter that it was manufacturing which would meet the needs of ESI and ARK. In May 2021, ARK ordered 50 transmitters from Anywave with the commitment for a test unit to be sent quickly, and a second batch of transmitters to be ordered after validation of that test unit. That unit arrived in August 2021. Anywave indicated once it had the first batch completed and its manufacturing more streamlined, it could ship deliver within 30 days on future orders. In the meantime, ARK placed an order with Anywave for 29 additional transmitters in June 2021 to establish ARK's priority for the hard-to-get units. Anywave shipped the first batch of 43 UHF transmitters via air freight. They did not arrive to ARK until October 2021. 6 more transmitters were delivered in late November 2021, and the remaining 29 transmitters were delivered in December 2021. Upon testing of the first batch of 50 units, 6 were determined to have issues

and need to be returned or serviced by Anywave. The remaining units that are not already in the process of deployment are being tested as they come in.

In an effort to secure transmitters, ARK negotiated with Comark to find a way to help. Although Comark did not have a transmitter of its own that would meet ARK's needs, Comark obtained a test transmitter from Technalogix in late October 2021 and determined that they could add a filter to make it suitable. ARK has ordered 57 such transmitters through Comark. The first batch of 7 were delivered to ARK in December 2021. 2 of those 7 have problems which are being resolved by Technalogix.

Once the first batch of transmitters arrived from Anywave, ARK immediately tested and began deploying beginning with Northern states in the hopes to avoid slowdowns from snow. ARK proceeded to install more than 30 of the Anywave transmitters. However, after commencing service with some of the transmitters, a wireless provided indicated to ARK that their operation was causing interference to wireless operations and that a new filter would be required. ARK is currently working to obtain the necessary filters to commence full power operations with the Anywave transmitters without creating impermissible interference. On December 3, 2021, ARK received a delivery of an additional 29 transmitters from Anywave. Given the high failure rate and the interference issues, ARK is not able to deploy those transmitters until it completes extensive testing and installs new filters to avoid the new issue that was pointed out by the wireless provider. ARK is currently working with Anywave to correct these issues and prepare the remaining transmitters for deployment.

With regard to the Technalogix transmitters, ARK obtained the first seven transmitters from Comark on December 6, 2021 and is cautiously optimistic it will receive half of the remaining 50 transmitters before the end of the year. Technalogix has indicated that a supply chain issue for transistors may delay the delivery by as much as 90 days. ARK intends to perform extensive testing on the Technalogix transmitters before it deploys them.

In summary, ARK has ordered more than 130 digital transmitters that it plans to install for facilities with upcoming digital construction deadlines, including the Station. At this time, ARK has only been able to install 30 of those transmitters, and further installations have been delayed while ARK completes testing of each individual transmitter.

In addition to the transmitter and antenna supply issues mentioned above, ESI and ARK have also experienced challenges finding skilled installers. The first two installers that ARK attempted to hire were not available. ARK identified two installers: one who has been working since October 2021 when the first batch of transmitters arrived, and another who only just became available (after ARK discovered the quality and performance issues with its initial supply of transmitters). In an attempt to complete the construction of these digital facilities as soon as possible, ARK's co-founder and CEO, Joshua D. Weiss, has personally installed the transmitters at some of the transmission sites. In the meantime, ARK has entered into arrangements with multiple vendors to expedite the installation process once the necessary equipment is received.

Finally, ESI and ARK have had to recently change the location for most of the transmitter sites for their digital facilities. In March 2020, ESI and ARK began negotiating an agreement for Crown Castle to serve as the primary tower vendor for the ESI and ARK stations. In March 2021, those conversations advanced and ESI and ARK began preparing to move all of their facilities to Crown Castle sites. However, in August 2021, the commercial negotiations failed and ESI and ARK had to quickly transition to American

Tower sites. This transition has required an extensive effort on the part of three consulting engineers, one of whom recently retired to care for his wife. Once the engineering consultants complete their engineering, it is taking approximately 3-4 weeks per site to obtain approval from American Tower.

Despite the aforementioned delays, ESI and ARK have been working diligently to obtain the additional equipment needed to complete construction of their digital facilities. ARK ordered 250 yagi antennas from SAMCO. ARK also ordered and has obtained bulk coaxial cable from Dielectric. Accordingly, ESI and ARK have done everything within their control to complete construction as soon as possible once ARK completes its testing of the newly received transmitters, obtains the proper filters, finalizes the engineering, and schedules the installers. Despite these challenges, ESI currently expects that the transmitter for the station, which is subject to a pending contract with Comark S010717, will ship on February 4, 2022.

II. The Commission Should Waive Tolling and Extend the CP

Under the present circumstances, a waiver of tolling and extension of the CP is justified. The Commission's tolling provisions provide that a construction permit deadline may be tolled under specific circumstances such as acts of God, delays due to administrative or judicial review, or construction that is delayed by any cause of action pending before a court of competent jurisdiction relating to any necessary local, state, or federal requirement for the construction or operation of the station, including any zoning or environmental requirement.[1] If a station does not qualify for tolling under these criteria, good cause may exist to waive the Commission's tolling provisions and still toll the expiration of the Station's construction permit where the station can demonstrate that "rare and exceptional circumstances" prevented construction.[2]

Tolling is appropriate here because ESI's inability to complete construction of its displacement facilities for the Station is due to rare and exceptional circumstances beyond its control.[3] The global supply chain disruptions and their specific effect on the availability of broadcast equipment have been well documented.[4] As a result of these supply chain issues, despite its diligence, ESI has been unable to obtain an adequate supply of transmitters for all of its digital construction permits. Nevertheless, ARK has made significant progress, constructing and licensing approximately 40 digital stations since July 2021. But ARK,

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[1] *Id.*

[2] *See 1998 Biennial Regulatory Review -- Streamlining of Mass Media Applications, Rules, and Processes*, Memorandum Opinion and Order, 14 FCC Rcd. 17525 ¶ 42 (1999) (recognizing that there may be "rare and exceptional circumstances" beyond the control of the licensee that do not fall under the tolling provisions, but "which would warrant the tolling of construction time.").

[3] *See 1998 Biennial Regulatory Review -- Streamlining of Mass Media Applications, Rules, and Processes*, Memorandum Opinion and Order, 14 FCC Rcd. 17525 ¶ 42 (1999) (recognizing that there may be "rare and exceptional circumstances" beyond the control of the licensee that do not fall under the tolling provisions, but "which would warrant the tolling of construction time").

[4] *See, e.g.*, Lazaro Gamio and Peter S. Goodman, *How the Supply Chain Crisis Unfolded*, The New York Times (Dec. 5, 2021), https://www.nytimes.com/interactive/2021/12/05/business/economy/supply-chain.html; Randy J. Stine, *Chip Shortage Hits Radio Technology Marketplace*, Radio World (Aug. 25, 2021), *available at* https://www.radioworld.com/news-and-business/headlines/chip-shortage-hits-radio-technology-marketplace.

despite its best efforts, has been unable to obtain enough transmitters and to hire enough qualified installers to complete construction for all of the ESI stations with pending digital construction permits.

A waiver of tolling under these circumstances is consistent with the Commission's approach to other construction related delays as part of the post-Incentive Auction transition. In its Public Notice adopting the post-Incentive Auction transition scheduling plan, the Media Bureau and the Incentive Auction Task Force declared that "[r]eassigned stations and band changing stations that are unable to complete construction of their post-auction channel facilities by their deadlines may seek a single extension of up to 180 days."[5] In justifying the provision of a one-time, 180-day extension, the FCC explained that "[g]iven the variety of challenges that stations may face in connection with the post-auction transition, stations that are able to demonstrate that they have experienced uncontrollable and unexpected delays in construction should be allowed a single extension of up to six months before being subject to our stricter tolling provisions."[6] The same rationale applies to low power television stations that have been attempting to complete their displacement facilities digital conversions in the middle of a global pandemic and supply chain shortage.

ARK currently expects to have all of the transmitters and antennas it has ordered in its possession by March 2021 and to complete testing of that equipment within 30 days of arrival. ARK will then need to develop a deployment schedule that accounts for weather (particularly in the northern states during the winter) and logistics. Although ESI and ARK will not be able to finalize their installation schedule until that testing is complete, ESI and ARK estimate that, absent any further delays, they will be able to complete construction of the Station's displacement facilities no later than July 9, 2022.

For the reasons stated above, the Commission should waive the tolling standard and provide ESI with an additional 180 days to complete construction and license its displacement facilities.

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[5] *Incentive Auction Task Force & Media Bureau Adopt A Post-Incentive Auction Transition Scheduling Plan*, Public Notice, 32 FCC Rcd. 890 ¶ 40 (MB & IATF 2017); 47 CFR § 73.3700(b)(5).

[6] *Incentive Auction Order* ¶ 583.