

**GREG BEST  
CONSULTING, INC.**

16100 Outlook Avenue  
Stilwell, KS 60085  
816-792-2913

November 19, 2018

## **STA REQUEST FOR WLGA**

This document will describe the circumstances that create the request for this Special Temporary Authorization ("STA") for WLGA. Upon grant of the instant request, WLGA will timely transition from the present existing RF channel 30 to RF channel 17 during the prescribed Phase 1 transition. WLGA is in the process of completing construction of the DTS system authorized per DTS CP (Blank#30376) (the "DTS CP"). There is substantial public benefit associated with this STA as WLGA will be off the air without the grant of this request. The licensee requests the STA for the period ending May 27, 2019, as it believes all factors including construction during the winter can be accommodated by that time.

On May 14, 2018, the FCC granted the application of CNZ Communications SE, LLC ("CNZ SE") for the DTS CP, which will allow WLGA to recapture population lost as a result of the post-auction repack through the use of a two-site distributed transmission system ("DTS"). In less than six months since the grant of the DTS CP, CNZ SE has undertaken extensive efforts to refine the engineering for the DTS, select and order the equipment for the DTS, and obtain an allocation from the TV Broadcaster Repack Fund. Unfortunately, these efforts have taken longer than expected. For instance, due to limitations in the FCC's Licensing and Management System, CNZ SE had to manually input the equipment selection and quotes on the WLGA DTS transmission facilities.

Upon determining that it would be unable to complete construction of the full WLGA DTS by the Phase 1 completion date (November 30, 2018), CNZ SE developed a plan to bifurcate the construction process and timely transition to its post-auction channel from its existing site (which will serve as DTS site #1) no sooner than November 27, 2018 before finishing construction for DTS site #2. This plan is described later in this document.

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 [CP] extension of up to 180 days."<sup>1</sup> The Public Notice directed broadcasters requesting an extension to include an exhibit "demonstrating that, despite all reasonable efforts, the station is unable to complete construction of its new facility on time due to circumstances that were either unforeseeable or beyond its control."<sup>2</sup> The public notice also explained that the Media Bureau "will evaluate all extension applications to determine whether grant will delay or disrupt the post-auction transition schedule."<sup>3</sup> CNZ SE has applied for such an extension (FCC reference file Blank 0000063323) including the required exhibit and is awaiting its grant. Once the CP extension is granted, it is expected that the DTS facility will be fully constructed and the License to Cover application will be filed within the timeframe of the extension.

During the time between the WLGA existing channel 30 shutdown date and the two-site DTS construction completion and filing of its license to cover application, WLGA has no authorization to broadcast. This grant of this STA request will allow WLGA to broadcast using channel 17 to serve its substantial portion of the DTS authorized audience during this gap in time. The operation of Site #1 is expected to reach 63 % of the DTS protected area population.

---

<sup>1</sup> *Incentive Auction Task Force & Media Bureau Adopt A Post-Incentive Auction Transition Scheduling Plan*, Public Notice, 32 FCC Rcd. 890 ¶ 40 (MB & IATF 2017) ("*Transition Schedule PN*").

<sup>2</sup> *Id.* ¶ 41.

<sup>3</sup> *Id.* ¶ 44.

Here, a 180 day period for the STA is requested because there are many factors outside CNZ SE's control. These factors include equipment reimbursement processes, Site #2 tower modifications (the tower is owned by another entity), equipment delivery, and weather (with associated tower crew schedule adjustments). The grant of the STA will not delay or disrupt the post-auction transition schedule. A letter provided by ERI, who is providing the antenna and installation crew for WLGA, supports this position. This letter is a separate attachment to the STA application.

The station's inability to complete construction stems from the delay in obtaining government approvals for the DTS and unusual technical challenges that arise from converting a single-stick facility to a DTS in such a short amount of time. The Media Bureau is familiar with CNZ SE's extensive efforts to design a post-auction facility that would reduce or eliminate viewer loss resulting from new adjacent-channel interference as a result of the post-auction repack. As a result, although CNZ SE submitted its first application for an RF channel 17 CP on July 12, 2017, it did not obtain the DTS CP until more than 10 months later – and less than 7 months before the Phase 1 completion date. To the best of CNZ SE's knowledge, WLGA is one of only a limited number of stations transitioning from a single-stick facility to a DTS as part of the post-auction transition, and the only in transition Phase 1. Designing and constructing a DTS presents unusual technical challenges that have proven impossible to overcome before the Phase 1 November deadline.

Despite these challenges, CNZ SE has developed a plan to allow it to transition to its new channel on time and without any delay or disruption to the post-auction transition schedule.

The proposed construction plan for the two site WLGA DTS system is to get Site #1 operational by the assigned Phase 1 transition date on the repacked channel while work continues to get Site #2 operational as soon as practical after the site owner is able to complete tower modifications currently in process. WLGA will sign off of its pre-repack channel 30 at the Phase 1 transition date or before so that no station in its linked-station group is affected. WLGA is a member of Linked Station Group #4. There is one other station in that group—WGIQ. The only dependency is that WLGA must shutdown channel 30 operation before WGIQ (Facility ID 710) moves to channel 30. The licensee of WLGA and WGIQ representatives are corresponding so that the coordinated effort produces no interference and the timing of the transition is well-managed relative to each station's constituents. In coordination with linked-station WGIQ, WLGA plans to shutdown operation on channel 30 on November 27<sup>th</sup>, 2018 and resume transmission on channel 17 using only DTS Site #1 as soon as possible, consistent with the grant of this STA request.

This STA requests temporary operation of the DTS Site #1 transmitter, transmission line, and antenna for DTS Site #1 using the operational parameters identified in the DTS CP. Insufficient resources and equipment will not permit any operation of Site #2 by the Phase 1 target date. Equipment designs for both the transmitter and the antenna for Site #2 are in process but actual delivery appears to be months out. Communications with those responsible for the tower modifications in process at Site #2 reveal that the modification are expected to be complete by late January or February of 2019.

The equipment and installation for this STA facility match the Site #1 operational parameters for the DTS CP. This consists of a ERI Trasar slot antenna developing an 550 kW ERP with the same antenna pattern as described in the DTS CP. The DTV transmitter is an authorized transmitter which feeds 1770 feet of 7" transmission line. The azimuth and elevation patterns are attached to this letter as well as the relevant transmitter power and line loss. These figures are provided below for reference.

#### TPO/ERP CALCULATIONS

$$H_{pol} \text{ ERP} = 550 \text{ kW}, \quad V_{pol} \text{ ERP} = 330 \text{ kW}$$

$$H_{pol} \text{ Gain} = 33.25, \quad V_{pol} \text{ Gain} = 44.16$$

$$\text{Antenna input power} = 550/33.25 + 330/44.16 = 24.01 \text{ kW}$$

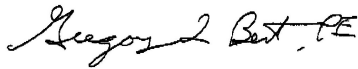
$$\text{Line Loss} = 1770 \text{ ft of } 7'' \text{ rigid coax} = 0.085 \times 1770 = 1.5 \text{ dB (70.8\%)}$$

$$\text{TPO} = 24.01/0.708 = 33.9 \text{ kW}$$

Upon grant of this STA request, WLGA will begin operation on its repacked channel 17 with transmission from Site #1 no sooner than the planned channel 30 shutdown date of November 27, 2018. The delay for implementation of Site #2 has no impact on other stations within the market or nearby.

Based upon the current timetable of equipment and services associated with getting WLGA Site #2 operational, it is possible to achieve this by end of February. However, an abundance of caution has been assumed due to the unknowns associated with weather and because DTS systems generally require some optimization before, during, and after initial operation has begun in order to minimize self-interference. For that reason, the STA expiration date requested is May 27, 2019.

Respectfully,

A handwritten signature in black ink, appearing to read "Gregory L. Best, P.E.", with a stylized flourish at the end.

Consulting Engineer