



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **6900** | Service: **DTV** | Call **WUPA** | Channel: **36 (UHF)**  
ID: | Sign:  
File **0000027041**  
Number:  
FRN: **0003474871** | Date **08/31**  
Submitted: **/2018**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>ATLANTA TELEVISION STATION WUPA INC.</b> Doing Business As: ATLANTA TELEVISION STATION WUPA INC.	Daniel G. Ryson 1725 DeSales St. NW Suite 501 Washington, DC 20036 United States	+1 (202) 457-4505	dryson@cbs.com	Corporation

## Reimbursement Contact Information

### Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

## Preparer Contact Information

### Preparer Contact Name and Information

Applicant	Address	Phone	Email
<b>Daniel G. Nass , Ryson</b> . <i>CBS</i>	Daniel G. Ryson 1725 DeSales St. NW Suite 501 Washington, DC 20036 United States	+1 (202) 457-4074	dryson@cbs.com

**Broadcaster Information and Transition Plan**

Question	Response
Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	Yes
Briefly describe transition plan	ATS will install new broadband ant at interim site. Facility will move to interim site. Current main site ant and tx line will be removed. ATS will install new broadband ant at main site. Facility will move from interim site to main site.

**Transmitters**

Section	Question	Response
<b>Transmitter Related Expenses</b>	Do you have transmitter related expenses?	Yes

**Auxiliary Transmitter**

**Add Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	Type of change	Retune Existing
	Use	Auxiliary (Backup)
	Ownership	Owned
	Owner	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	Rhode and Schwarz

Model	NV8303
Year	2001
Type	Solid State
Solid State Cooling	Air Cooled
Solid State Power capacity	1.5 kW

**Auxiliary Transmitter**

**Retuning Transmitter Costs**

Section	Question	Response
<b>New IOT Tubes</b>	Number of Tubes (including accessories) needed	N/A
<b>New Mask Filter</b>	Power	1.5 kW
	Other Power	N/A
<b>New Exciter</b>	Is a new exciter needed?	No

**Auxiliary Transmitter**

**Other Transmitter Costs**

Section	Question	Response
<b>Electrical Service</b>	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	No
	Size	N/A
	Length	N/A
	Other Electrical Service	No
	Description	N/A
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No

	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Auxiliary Transmitter** **Other Transmitter Cost Not Listed**  
Information not provided.

**Primary  
Transmitter**

**Existing Transmitter Information**

<b>Section</b>	<b>Question</b>	<b>Response</b>
<b>Existing Transmitter Description</b>	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	Sigma
	Year	2001
	Type	Inductive Output Tube
	IOT Power Type	Three
	Power Capacity	63 kW

**Primary  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
<b>New Transmitter</b>	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-100
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	62.9 kW
	Justification for New Transmitter	Cannot re-tune current IOT transmitter. Replacement IOT transmitter will exceed cost of replacement solid state.

**Primary  
Transmitter**

**Other Transmitter Costs**

Section	Question	Response
<b>Electrical Service</b>	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	Yes
	Power	500 kVA
	Rigid Conduit and Wiring	Yes
	Size	4 inches

	Length	300.0 feet
	Other Electrical Service	Yes
	Description	Electrical work. Includes labor and materials not already listed.
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Primary Transmitter**      **Other Transmitter Cost Not Listed**  
Information not provided.

**Interim  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
<p><b>New Transmitter</b></p>	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-72
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	35.4 kW
	Justification for New Transmitter	<p>Facility must move to interim site for an expended period of time. Revised gains and losses at interim site required an increase in transmitter size to ULXTE-72 (35.4 kW @ Ch. 43) to replicate licensed WUPA coverage. See May 2018 Statement.</p>



**Interim  
Transmitter**

**Other Transmitter Costs**

Section	Question	Response
<b>Electrical Service</b>	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	Yes
	Size	4 inches
	Length	400.0 feet
	Other Electrical Service	Yes
	Description	Electrical work including labor and materials not listed elsewhere. See Exhibit 7
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

<b>Inside RF System</b>	Is an additional interior RF system required to support this interim transmitter?	No
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**Interim  
Transmitter**

**Other Transmitter Cost Not Listed**

<b>Name</b>	<b>Description</b>
<b>Transmitter Control</b>	Remote Control and Monitoring of Interim Transmitter and site.

**Antennas**

Section	Question	Response
Antenna Related Expenses	Do you have antenna related expenses?	Yes

**Primary  
Antenna**

**Existing Antenna Information**

Section	Question	Response
<b>Existing Antenna Description</b>	Type of change	Lease New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
<b>Existing Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW
Manufacturer		

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Model	TFU-32GTH-R
Year	2002

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**Primary  
Antenna**

**New Antenna Costs**

Section	Question	Response
<b>New Antenna Description</b>	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Lease New
	Is this a request for upgraded equipment?	Yes
	Ownership	Leased
	Owner	American Tower
	Is antenna shared?	Yes
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
<b>New Antenna Manufacturer and Types</b>	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Elliptical
	Type	Broadband Panel
	Number of Stations Supported	4
	Number of Panels/Bays	99
	Lower Limit	470.00 MHz
	Upper Limit	608.00 MHz
	Design power capacity in use	50.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW
	Manufacturer	

Model	14 bay, 4 around,, 56 ele total
Year	2018
Justification for New Antenna	Channel Change

**Primary Antenna**

**Other Antenna Costs**

Section	Question	Response
<b>Combiner for Shared Antenna</b>	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	4
	Frequencies of channels supported	Upper and lower frequency
	Frequency	470.0 MHz - 608.0 MHz
	Do you need a combiner output splitter /switcher for dual feed lines?	No
<b>Elbow Complex</b>	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Broadband
	Feed Line Size	8 3/16 inches inches
<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for a high power antenna?	No
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes

**Primary  
Antenna**

**Other Antenna Cost Not Listed**

Name	Description
Dielectric Combiner Installation	installation of combiner



**Interim  
Antenna**

**New Antenna Costs**

Section	Question	Response
<b>New Antenna Description</b>	Use	Interim
	Description of Use	N/A
	Change Type	Lease New
	Ownership	Leased
	Owner	American Tower
	Is antenna shared?	Yes
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
<b>New Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Elliptical
	Type	Broadband Panel
	Number of Stations Supported	5
	Number of Panels/Bays	12
	Lower Limit	470.00 MHz
	Upper Limit	608.00 MHz
	Design power capacity in use	50.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	100.0 kW
	Manufacturer	
	Model	PEPL48D-C170-2-6
	Year	2018

Justification for New Antenna	Needed for transition logistics
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**Interim Antenna**

**Other Antenna Costs**

Section	Question	Response
<b>Combiner for Shared Antenna</b>	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	5
	Frequencies of channels supported	Upper and lower frequency
	Frequency	470.0 MHz - 608.0 MHz
	Do you need a combiner output splitter /switcher for dual feed lines?	No
<b>Elbow Complex</b>	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	B
	Feed Line Size	8 3/16 inches
<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for an antenna?	No
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes

**Interim Antenna**

**Other Antenna Cost Not Listed**

Name	Description
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**Combiner Installation**

Installation of interim site combiner.

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**Transmission  
Line**

Section	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

**Primary  
Transmission  
Line**

**Existing Transmission Line**

Section	Question	Response
<b>Existing Transmission Line Description</b>	Type of change	Lease New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	Yes
	Is Transmission Line in operating condition?	Yes
<b>Existing Transmission Line Manufacturer and Type</b>	Manufacturer	
	Type	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	2
	Length	1275 feet per run

**Facility ID's and Call Signs of all stations with whom the transmission line is shared.**

Facility ID	Call Sign
23960	WSB-TV
48813	WUVG-DT
64033	WPCH-TV

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72120

WGCL-TV

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**Primary  
Transmission  
Line**

**New Transmission Line**

Section	Question	Response
<b>New Transmission Line Costs</b>	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Lease New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	2
	Length	1275 feet per run
Justification for New Transmission Line	Line to be re-furbished and connectors replaced.	

**Primary  
Transmission  
Line**

**Other Transmission Line Expenses Not Listed**

Name	Description
<b>Gas Blocks</b>	gas blocks
<b>Interconnect tx line main</b>	50' of 7-3/16" for connect to combiner.
<b>TX line reducers</b>	(2) 7-3/16" to 6-1/8" reducers
<b>Interconnect tx line aux</b>	150' of 6-1/8" line for connect to combiner.

**Interim  
Transmission  
Line**

**New Transmission Line**

Section	Question	Response
<b>New Transmission Line Costs</b>	Use	Interim
	Description of Use	N/A
	Change Type	Lease New
	Type	Rigid
	Diameter	8 3/16 inches
	Segment Length	Broadband
	Other Segment Length	
	Number of parallel runs	1
	Length	1225 feet per run
	Justification for New Transmission Line	For interim site antenna

**Interim  
Transmission  
Line**

**Other Transmission Line Expenses Not Listed**

Information not provided.



**Tower Equipment And Rigging Costs**

Section	Question	Response
Tower Equipment or Rigging Costs Changes	Do you have tower equipment or rigging costs changes?	Yes

**Auxiliary Tower**

**Add Tower**

Section	Question	Response
<b>Existing Tower Description</b>	Type of change	Modify Existing
	Tower Use	Auxiliary (Backup)
	Description of Use	Interim Tower
	Ownership	Leased
	Is this tower consider Complex?	Candelabra
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	No
	Is tower documented for structural analysis?	Unknown
	Is tower compliant with Rev G?	Yes
<b>Existing Tower Structure Registration</b>	Do you have a tower registration number?	Yes
	ASR Number	1206253
<b>Coordinates (NAD83 (North American Datum of 1983))</b>	Latitude (NAD83)	33° 44' 40.9" N-
	Longitude (NAD83)	084° 21' 35.7" W-
	Overall Structure Height	1080.04 feet
	Support Structure Height	956.03 feet
	Ground Elevation Above Mean Sea Level (AMSL)	969.15 feet

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	American Towers, LLC
Date Constructed	05/14/2002

**FM, AM or TV radio  
broadcasters. Facility ID's,  
Call Signs and Services of  
other broadcast stations with  
whom the tower is shared**

Facility ID	Call Sign	Service
55108	WIRE-CD	DTV
64033	WPCH-TV	DTV
48813	WUVG-DT	DTV
168094	WYGA-CD	DTV
23959	WRAS	FM
68058	WHSG-TV	DTV

**Auxiliary  
Tower**

**Tower Modification Costs**

Section	Question	Response
<b>Engineering Study</b>	Please what type of engineering study is required, if any:	Study needed for tower with candelabra
<b>Tower Reinforcements</b>	Please select whether tower reinforcements are needed:	Minor Reinforcements needed

**Auxiliary  
Tower**

**Tower Rigging Costs**

Section	Question	Response
Tower Rigging Costs	Complex Tower	Candelabra
Helicopter Services Required	Are helicopter services required?	No

**Auxiliary  
Tower**

**Other Tower Expenses Not Listed**

Information not provided.

**Primary Tower**

**Existing Tower**

Section	Question	Response
<b>Existing Tower Description</b>	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	Is this tower consider Complex?	Candelabra
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	No
	Is tower documented for structural analysis?	Unknown
	Is tower compliant with Rev G?	Unknown
<b>Existing Tower Structure Registration</b>	Do you have a tower registration number?	Yes
	ASR Number	1223132
<b>Coordinates (NAD83 (North American Datum of 1983))</b>	Latitude (NAD83)	33° 48' 26.4" N-
	Longitude (NAD83)	084° 20' 21.5" W-
	Overall Structure Height	1182.07 feet
	Support Structure Height	1056.09 feet
	Ground Elevation Above Mean Sea Level (AMSL)	867.12 feet
	Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
	Tower Owner	American Tower, LLC
	Date Constructed	03/27/2002

**FM, AM or TV radio  
broadcasters. Facility ID's,  
Call Signs and Services of  
other broadcast stations with  
whom the tower is shared**

Facility ID	Call Sign	Service
11675	WCLK	FM
11275	WWPW	FM
13805	WZGC	FM
22819	WATL	DTV
23960	WSB-TV	DTV
29735	WUBL	FM
48813	WUVG-DT	DTV
72120	WGCL-TV	DTV
39735	WSTT	AM
73161	WKHX-FM	FM
64033	WPCH-TV	DTV
68058	WHSB-TV	DTV
73345	WWWQ	FM
54585	WRFG	FM

**Primary  
Tower**

**Tower Modification Costs**

Section	Question	Response
<b>Engineering Study</b>	Please what type of engineering study is required, if any:	Study needed for tower with candelabra
<b>Tower Reinforcements</b>	Please select whether tower reinforcements are needed:	Major Reinforcements needed

**Primary  
Tower**

**Tower Rigging Costs**

Section	Question	Response
Tower Rigging Costs	Complex Tower	Candelabra
Helicopter Services Required	Are helicopter services required?	No

**Primary  
Tower**

**Other Tower Expenses Not Listed**

Information not provided.

**Outside Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	Yes
	Number of Hours	250
	Explanation	Station does not have adequate staff to handle this internally.
<b>Outside RF consulting Engineering Services</b>	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
<b>Attorney and Other Outside Consulting Services</b>	Prepare and file Form FCC Construction Permit Application	No
	For Auxiliary Facility	N/A
	For Main Facility	N/A

	Prepare and file Form FCC License to Cover Application	No
	For Auxiliary Facility	N/A
	For Main Facility	N/A
	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	No
	Address transition timing and coordination issues w/ other stations and wireless providers	No
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	No
	RF exposure measurements	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

**Other Professional Services Expenses Not Listed**

**Outside Professional Services Costs** Information not provided.



**Other Expenses**

Section	Question	Response
<b>AM Pattern Disturbance</b>	Is an Impact Study needed?	No
	Is Remediation needed?	No
<b>Facility Expenses</b>	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
<b>Permit and Filing Costs</b>	Local Zoning	No
	Non-zoning permits	Yes
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
<b>Other Miscellaneous Expenses</b>	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	No
	Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
	Does this relocation require MVPD Notification of a Channel Change?	Yes

**Other  
Expenses**

**Other Expenses Not Listed**

<b>Name</b>	<b>Description</b>
<b>Interim site tx internal tx line</b>	Install / modify feed line to combiner and test.
<b>ATC Proj Mgmt</b>	Tower construction project management by ATC. Site coordinations.
<b>Main tx internal tx line</b>	Install / modify feed line to combiner and test.

**Cost Information**

**Transmitters**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Interim Transmitter ULXTE-72</b>	<b>\$1,608,780.00</b>	<b>\$1,475,559.22</b>		<b>\$763,682.66</b>	
Transmitter Control	<i>\$4,680.00</i>	\$4,680.00	Remote Control and Monitoring of Interim Transmitter and Site. Does not include sales tax or shipping. See Attachment 13.	\$5,135.40	Includes Shipping and 8% State Sales Tax. See quote provided as Attachment 13.
Other Electrical Service: Electrical work including labor and materials not listed elsewhere. See Exhibit 7	<i>\$52,500.00</i>	\$52,500.00	See Exhibit 7. (Note: Original 399 Filing reversed Primary and Interim Costs. This was corrected in a April, 2018 revision.)	\$0.00	N/A
4" Rigid Conduit and Wiring (Cost per foot)	\$40,400.00	\$38,400.00	N/A	N/A	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,343,679.22	Includes Transmitter, Mask Filter, RF Accessories, Electrical, Installation & Proof, Tax, and Shipping. See May 2018 Statement, Attachment 5B, which supersedes Attachments 5 and 5A.	\$758,547.26	N/A
<b>Primary Transmitter ULXTE-100</b>	<b>\$1,946,500.64</b>	<b>\$1,942,600.64</b>		<b>\$647,562.12</b>	
Other Electrical Service: Electrical work. Includes labor and materials not already listed.	<i>\$47,500.00</i>	\$47,500.00	Electrical service required for new transmitter and transmitter cooling equipment. (Note: Original 399 Filing reversed Primary and Interim Costs. This was corrected in a April, 2018 revision.)	N/A	N/A
4" Rigid Conduit and Wiring (Cost per foot)	\$30,300.00	\$28,800.00	N/A	N/A	N/A

UHF - Liquid Cooled Solid State Transmitter 62.9 kW	<b>\$1,820,300.64</b>	\$1,820,300.64	Present transmitter cannot be re- tuned per manufacturer. Solid state transmitter cost is less than replacement IOT transmitter. Includes Shipping, Tax, and Installation. See Attachment 2A.	\$647,562.12	N/A
Transformer 3 phase /480v - 500 KVA	\$48,400.00	\$46,000.00	N/A	N/A	N/A
<b>Auxiliary Transmitter NV8303</b>	<b>\$108,230.00</b>	<b>\$2,800.00</b>		<b>\$0.00</b>	
1.5 kW mask filter	\$3,030.00	\$2,800.00	N/A	N/A	N/A
UHF and VHF - minor banding issues	\$105,200.00	\$0.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$3,663,510.64</b>	<b>\$3,420,959.86</b>	N/A	<b>\$1,411,244.78</b>	N/A
<b>Total for all systems</b>	<b>\$8,141,615.64</b>	<b>\$4,542,372.86</b>	N/A	<b>\$1,669,311.70</b>	N/A

## Components

### Actual Information

Description

File Name

Transmitter Control	<p><b>Component Description:</b> Excludes \$1,200 Annual Support Contract at Primary Site which is not a Repack Related Expense. Adds Shipping and 8% Sales Tax not shown on original invoice, Attachment 13.</p> <p><b>Amount:</b> \$5,135.40</p>
Other Electrical Service: Electrical work including labor and materials not listed elsewhere. See Exhibit 7	Information not provided.
4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
Switchgear - industrial 800 amp	Information not provided.
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	<p><b>Component Description:</b> Interim transmitter progress payment. See May 2018 Statement and Attachment 5B.</p> <p><b>Amount:</b> \$379,273.63</p> <p><b>Component Description:</b> Interim Transmitter Down Payment. Please see May 2018 Statement and Attachment 5B.</p> <p><b>Amount:</b> \$379,273.63</p>

Other Electrical Service: Electrical work. Includes labor and materials not already listed.	Information not provided.
4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
UHF - Liquid Cooled Solid State Transmitter 62.9 kW	<p><b>Component Description:</b> Primary Transmitter Down Payment. See Attachment 8B for an explanation of the "more than 1 /3" down payment amount specified in GatesAir's terms. This invoice excludes tax and shipping.</p> <p><b>Amount:</b> \$647,562.12</p>
Transformer 3 phase/480v - 500 KVA	Information not provided.
1.5 kW mask filter	Information not provided.
UHF and VHF - minor banding issues	Information not provided.

**Cost Information**

**Antennas**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Interim Antenna PEPL48D-C170-2-6</b>	<b>\$196,675.00</b>	<b>\$115,395.00</b>		<b>\$64,770.25</b>	
Combiner Installation	<i>\$5,000.00</i>	\$5,000.00	See EXHIBIT	N/A	N/A
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	\$18,950.00	\$3,600.00	N/A	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$22,500.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$2,500.00	N/A	N/A	N/A
UHF - High Power Top Mount Five Station broadband panel antenna elliptically or circularly polarized	<i>\$81,795.00</i>	\$81,795.00	To accommodate move. See Attachment 7	\$64,770.25	N/A



<b>Primary Antenna 14 bay, 4 around,, 56 ele total</b>	<b>\$1,216,980.00</b>	<b>\$308,213.00</b>		<b>\$187,690.00</b>	
Dielectric Combiner Installation	<i>\$17,100.00</i>	\$17,100.00	Cost includes removal of existing combiner.	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized	\$1,090,000.00	\$202,113.00	See Attachment 6, Page 1. This is WUPA's pro rata share.	\$187,690.00	N/A
Sweep test of existing antenna	\$6,730.00	\$5,000.00	N/A	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$66,000.00	N/A	N/A	N/A
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	\$18,950.00	\$18,000.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$1,413,655.00</b>	<b>\$423,608.00</b>	<b>N/A</b>	<b>\$252,460.25</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$8,141,615.64</b>	<b>\$4,542,372.86</b>	<b>N/A</b>	<b>\$1,669,311.70</b>	<b>N/A</b>

## Components

Actual Information Description	File Name
Combiner Installation	Information not provided.
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	Information not provided.
New combiner, cost per channel (without antenna)	Information not provided.
Sweep test of existing antenna	Information not provided.
UHF - High Power Top Mount Five Station broadband panel antenna elliptically or circularly polarized	<p><b>Component Description:</b> 25% Down Payment of amount shown in Attachment 7 (minus 57,600 rent).</p> <p><b>Amount:</b> \$64,770.25</p>
Dielectric Combiner Installation	Information not provided.
UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized	<p><b>Component Description:</b> 25% Down Payment of amount shown in Attachment 6.</p> <p><b>Amount:</b> \$187,690.00</p>
Sweep test of existing antenna	Information not provided.
New combiner, cost per channel (without antenna)	Information not provided.
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	Information not provided.

**Cost Information**

**Transmission Line**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Interim Transmission Line</b>	<b>\$488,775.00</b>	<b>\$46,121.00</b>		<b>\$0.00</b>	
Rigid Transmission Line - copper, 8 3 /16" broadband	\$488,775.00	\$46,121.00	N/A	N/A	N/A
<b>Primary Transmission Line</b>	<b>\$943,950.00</b>	<b>\$130,934.00</b>		<b>\$0.00</b>	
Interconnect tx line aux	<i>\$28,800.00</i>	\$28,800.00	Aux transmitter interconnect to combiner. 150ft of 6-1 /8" rigid copper line.	N/A	N/A
TX line reducers	<i>\$4,500.00</i>	\$4,500.00	Required for line adapter from 7-3 /16" to 6-1 /8" combiner aux interconnect.	N/A	N/A
Interconnect tx line main	<i>\$13,800.00</i>	\$13,800.00	50ft of 7-3 /16" line for main tx connect to combiner. Published price.	N/A	N/A

Gas Blocks	<i>\$12,000.00</i>	\$12,000.00	Required for aux interconnect to combiner	N/A	N/A
Rigid Transmission Line - copper, 8 3 /16"	\$884,850.00	\$71,834.00	N/A	N/A	N/A
<b>Sub-total</b>	\$1,432,725.00	\$177,055.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$8,141,615.64	\$4,542,372.86	N/A	\$1,669,311.70	N/A

### Components

Information not provided.

**Cost Information**

**Tower Equipment and Rigging Costs**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Primary Tower GTOWER</b>	<b>\$862,000.00</b>	<b>\$308,300.00</b>		<b>\$0.00</b>	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$136,000.00	N/A	N/A	N/A
Major tower reinforcement /modifications	\$421,000.00	\$157,500.00	N/A	N/A	N/A
Structural engineering tower load study for a documented tower with candelabra	\$20,000.00	\$14,800.00	N/A	N/A	N/A
<b>Auxiliary Tower GTOWER</b>	<b>\$599,000.00</b>	<b>\$64,500.00</b>		<b>\$0.00</b>	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$45,000.00	N/A	N/A	N/A

Minor tower reinforcement /modifications	\$158,000.00	\$15,000.00	N/A	N/A	N/A
Structural engineering tower load study for a documented tower with candelabra	\$20,000.00	\$4,500.00	N/A	N/A	N/A
<b>Sub-total</b>	\$1,461,000.00	\$372,800.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$8,141,615.64	\$4,542,372.86	N/A	\$1,669,311.70	N/A

### Components

Information not provided.

**Cost Information**

**Outside Professional Services**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Outside Professional Services</b>	<b>\$72,645.00</b>	<b>\$57,170.00</b>		<b>\$5,606.67</b>	
RF Exposure Measurements	\$21,050.00	\$8,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$1,625.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,170.00	N/A	\$825.00	N/A
Project management of the transition	\$39,500.00	\$37,500.00	N/A	\$3,156.67	N/A
<b>Sub-total</b>	<b>\$72,645.00</b>	<b>\$57,170.00</b>	<b>N/A</b>	<b>\$5,606.67</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$8,141,615.64</b>	<b>\$4,542,372.86</b>	<b>N/A</b>	<b>\$1,669,311.70</b>	<b>N/A</b>

## Components

Actual Information	
Description	File Name
RF Exposure Measurements	Information not provided.
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	<p><b>Component Description:</b> Develop final ERP and operating parameters for Construction Permit application. See Attachment 16.</p> <p><b>Amount:</b> \$1,625.00</p>
Perform engineering study for new channel assignment and antenna development	<p><b>Component Description:</b> Conduct preliminary review of repacked channel with prospective shared antenna. See Attachment 16.</p> <p><b>Amount:</b> \$825.00</p>
Project management of the transition	<p><b>Component Description:</b> Project Management and Repack Implementation. Please see Attachment 15.</p> <p><b>Amount:</b> \$3,156.67</p>



**Cost Information**

**Other Expenses**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Other Expenses</b>	<b>\$98,080.00</b>	<b>\$90,780.00</b>		<b>\$0.00</b>	
Main tx internal tx line	<i>\$7,000.00</i>	\$7,000.00	Install line from transmitter to combiner and test.	N/A	N/A
ATC Proj Mgmt	<i>\$19,480.00</i>	\$19,480.00	American Tower project management and oversight.	N/A	N/A
Interim site tx internal tx line	<i>\$4,000.00</i>	\$4,000.00	Install line from transmitter to combiner and test.	N/A	N/A
MVPD Notification of Channel Change	<i>\$1,500.00</i>	\$1,500.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	<i>\$0.00</i>	\$0.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$15,000.00</i>	\$15,000.00	N/A	N/A	N/A

Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$20,000.00</i>	\$20,000.00	Remove and dispose of transmitter and associated non-reused equipment.	N/A	N/A
Non-zoning permits	<i>\$19,550.00</i>	\$19,550.00	Prepare drawings for permits and permit filing costs for Main and Interim tower work.	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$4,250.00	N/A	N/A	N/A
<b>Sub-total</b>	\$98,080.00	\$90,780.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$8,141,615.64	\$4,542,372.86	N/A	\$1,669,311.70	N/A

### Components

Information not provided.

**Cost Information** **Grand Total**

	<b>Predetermined Cost Estimate</b>	<b>Estimated Cost</b>	<b>Actual Cost</b>
<b>Total for all systems</b>	\$8,141,615.64	\$4,542,372.86	\$1,669,311.70

**Reimbursement Status**

<b>Question</b>	<b>Response</b>
The facility has ceased operating on its pre-auction channel.	No
Construction of final facilities or all necessary modifications are complete.	No
All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator.	No

Certification	Section	Question	Response
	<p><b>Submission of Estimated Expenses Statements</b></p>	<p>WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.</p>	
		<ol style="list-style-type: none"> <li>1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity.</li> <li>2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.</li> </ol>	

4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

<p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Andrew J Siegel</b>  <i>Assistant Secretary</i></p> <p>08/31/2018</p>

**Attachments**