



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **6900** | Service: **DTV** | Call **WUPA** | Channel: **36 (UHF)**  
ID:  
File **0000027041**  
Number:  
FRN: **0003474871** | Date **09/10**  
Submitted: **/2019**

## 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> CBS	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
Transmitter Related Expenses	Do you have transmitter related expenses?	Yes

**Auxiliary  
Transmitter****Add Transmitter Information**

Section	Question	Response
Existing Transmitter Description	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
Existing Transmitter Manufacturer and Type	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**

Section	Question	Response
<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
New Transmitter	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-120
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	75.1 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
Electrical Service	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
New Transmitter	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	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.



**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.
<b>Unistrut Frame Kit</b>	Unistrut Frame Kit. Required to support Heat Exchangers.

**Antennas**

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

## Primary Antenna

### Existing Antenna Information

Section	Question	Response
Existing Antenna Description	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
Existing Antenna Manufacturer and Type	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	

Model	TFU-32GTH-R
Year	2002

**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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<b>Combiner Installation</b>	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>TX line reducers</b>	(2) 7-3/16" to 6-1/8" reducers
<b>Gas Blocks</b>	gas blocks
<b>Interconnect tx line main</b>	50' of 7-3/16" for connect to combiner.
<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
Existing Tower Description	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
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1206253
Coordinates (NAD83 (North American Datum of 1983))	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
64033	WPCH-TV	DTV
68058	WHSB-TV	DTV
23959	WRAS	FM
55108	WIRE-CD	DTV
48813	WUVG-DT	DTV
168094	WYGA-CD	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**

Name	Description
Interim Tower Mapping	Structural tower mapping to ensure the proper structural information is relayed to engineering for the rigorous structural assessment for the proposed repack equipment.
Interim Tower Rent	Flat Rate Rental for Interim Use of the ATC Chester Avenue tower. Required while Primary Tower without disruption of the WUPA on-air signal. See Attachment 7A Section 1-B-1.

## Primary Tower

### Existing Tower

Section	Question	Response
Existing Tower Description	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
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1223132
Coordinates (NAD83 (North American Datum of 1983))	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
73161	WKHX-FM	FM
48813	WUVG-DT	DTV
39735	WSTT	AM
54585	WRFG	FM
64033	WPCH-TV	DTV
72120	WGCL-TV	DTV
73345	WWWQ	FM
29735	WUBL	FM
23960	WSB-TV	DTV
22819	WATL	DTV
68058	WHSG-TV	DTV
13805	WZGC	FM
11275	WWPW	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**

Name	Description
Primary Tower Mapping	Structural tower mapping to ensure the proper structural information is relayed to engineering for the rigorous structural assessment for the proposed repack equipment. See Attachment 6A.
Site Security	Site security for installation and storage of Transmission line and materials for 9 days X 12 hours. These materials are a high risk of theft due to the material makeup such as copper, brass and aluminum.
Tower Construction Management	(80) hours on Modification project management and RF installation project management for a total of twenty (30) days. See Attachment 6A Section 3-D-1.

**Outside  
Professional**

Section	Question	Response
<b>Services Costs 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

**Outside Professional Services Costs**

**Other Professional Services Expenses Not Listed**

Name	Description
<b>RF System Tests</b>	RF system testing of the primary and interim combiners to ensure all frequencies are tuned for optimal performance. See Attachments 6 and 7 section 1-B-1.



## 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**

Name	Description
<b>ATC Proj Mgmt</b>	Tower construction project management by ATC. Site coordinations.
<b>Interim site tx internal tx line</b>	Install / modify feed line to combiner and test.
<b>Main tx internal tx line</b>	Install / modify feed line to combiner and test.
<b>Site Coordination Meetings</b>	Site coordination meetings with all broadcasters, contractors and vendors involved with the site project. See Attachments 6 and 7 section 1-B-1.
<b>Address Transition Timing</b>	Coordination and transition planning with all parties onsite and management of the timelines and schedules occurring during the repack. See Attachments 6 and 7 section 1-A-1.

## 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
Interim Transmitter ULXTE-72	\$1,606,176.80	\$1,484,954.35		\$1,357,754.35	
Transmitter Control	<i>\$0.00</i>	\$0.00	It is now understood that the FCC has deemed that transmitter controls are not a reimbursable expense.	\$0.00	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
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	\$1,355,677.55	Includes Transmitter, Mask Filter, RF Accessories, Electrical, Installation & Proof, Tax, Shipping and Installation Parts. Actual shipping exceeded May 2018 estimate shown in Attachment 5B.	\$1,355,677.55	Total cost includes unanticipated installation parts (see Change Order Q81068) and actual freight exceeded original estimate.
4" Rigid Conduit and Wiring (Cost per foot)	\$40,400.00	\$38,400.00	N/A	N/A	N/A
Unistrut Frame Kit	\$2,076.80	\$2,076.80	See Attachment 25. Includes State Sales Tax.	\$2,076.80	N/A
<b>Primary Transmitter ULXTE-120</b>	<b>\$2,644,804.81</b>	<b>\$2,640,904.81</b>		<b>\$1,731,566.44</b>	
4" Rigid Conduit and Wiring (Cost per foot)	\$30,300.00	\$28,800.00	N/A	N/A	N/A
Transformer 3 phase /480v - 500 KVA	\$48,400.00	\$46,000.00	N/A	N/A	N/A

UHF - Liquid Cooled Solid State Transmitter 75.1 kW	<b>\$1,871,042.69</b>	\$1,871,042.69	Present transmitter cannot be re- tuned per manufacturer. Solid state transmitter cost is less than replacement IOT transmitter. Includes Shipping, Tax, and Installation. See quotes for upgraded ULXTE-120 and comparable ULXTE-100 Attachments 8E, 27, and	\$1,084,004.32	N/A
Other Electrical Service: Electrical work. Includes labor and materials not already listed.	<b>\$47,500.00</b>	\$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

UHF - Liquid Cooled Solid State Transmitter 62.9 kW	<b>\$647,562.12</b>	\$647,562.12	***System Notice: Estimate adjusted and locked because line has been superseded. ***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
<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>\$4,359,211.61</b>	<b>\$4,128,659.16</b>	<b>N/A</b>	<b>\$3,089,320.79</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$8,936,193.28</b>	<b>\$5,344,320.00</b>	<b>N/A</b>	<b>\$3,534,865.71</b>	<b>N/A</b>

## Components

**Actual Information**  
**Description**

**File Name**

Transmitter Control	<p><b>Component Description:</b></p> <p>Excludes \$1,200 Annual Support Contract at Primary Site which is not a Repack Related Expense. Adds Shipping not shown on original estimate, Attachment 13.</p> <p><b>Amount:</b></p> <p>\$4,755.00</p>
Other Electrical Service: Electrical work including labor and materials not listed elsewhere. See Exhibit 7	Information not provided.
Switchgear - industrial 800 amp	Information not provided.

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	<div> <b>Component Description:</b> Interim Transmitter Down Payment. Please see May 2018 Statement and Attachment 5B.         </div> <div> <b>Amount:</b> \$379,273.63         </div>
	<div> <b>Component Description:</b> Interim transmitter progress payment. See May 2018 Statement and Attachment 5B.         </div> <div> <b>Amount:</b> \$379,273.63         </div>
	<div> <b>Component Description:</b> Final invoice shows installation, proof, and freight. See Attachment 24.         </div> <div> <b>Amount:</b> \$96,349.43         </div>
	<div> <b>Component Description:</b> Interim Transmitter Invoice Three. Includes Various Installation parts. (See Change Order Q81068 in Attachment 23.)         </div> <div> <b>Amount:</b> \$500,780.86         </div>
4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
Unistrut Frame Kit	<div> <b>Component Description:</b> Unistrut Frame Kit for Transmitter Heat Exchangers. See Attachment 25.         </div> <div> <b>Amount:</b> \$2,076.80         </div>
4" Rigid Conduit and Wiring (Cost per foot)	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>\$86,546.25</b>	
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	\$18,950.00	\$3,600.00	N/A	\$2,700.00	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$22,500.00	N/A	\$16,875.00	N/A
UHF - High Power Top Mount Five Station broadband panel antenna elliptically or circularly polarized	<b>\$81,795.00</b>	\$81,795.00	To accommodate move. See Attachment 7	\$61,346.25	N/A
Combiner Installation	<b>\$5,000.00</b>	\$5,000.00	See EXHIBIT	\$3,750.00	N/A
Sweep test of existing antenna	\$6,730.00	\$2,500.00	N/A	\$1,875.00	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>\$77,053.25</b>	
Dielectric Combiner Installation	<b>\$17,100.00</b>	\$17,100.00	Cost includes removal of existing combiner. See Attachment 6B, Section 3-C-2.	\$4,275.00	N/A
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	\$18,950.00	\$18,000.00	See Attachment 6B, Section 3-C-2	\$4,500.00	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$66,000.00	See Attachment 6B Section 3-C-1	\$16,500.00	N/A
Sweep test of existing antenna	\$6,730.00	\$5,000.00	See Attachment 6B, Section 3-C-2	\$1,250.00	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 6B, Section 3B. This is WUPA's pro rata share.	\$50,528.25	N/A
<b>Sub-total</b>	<b>\$1,413,655.00</b>	<b>\$423,608.00</b>	<b>N/A</b>	<b>\$163,599.50</b>	<b>N/A</b>

<b>Total for all systems</b>	\$8,936,193.28	\$5,344,320.00	N/A	\$3,534,865.71	N/A
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## Components

Actual Information	
Description	File Name
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	<b>Component Description:</b>
	Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Antenna Elbow Complex, Attachment 7A section 3-C-2.
	<b>Amount:</b>
	\$1,800.00
	<b>Component Description:</b>
	Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Antenna Elbow Complex, Attachment 7A section 3-C-2.
	<b>Amount:</b>
	\$900.00

New combiner, cost per channel (without antenna)	<b>Component Description:</b>	Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Combiner, Attachment 7A section 3-C-1.
	<b>Amount:</b>	\$11,250.00
	<b>Component Description:</b>	Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Combiner, Attachment 7A section 3-C-1.
	<b>Amount:</b>	\$5,625.00

UHF - High Power Top Mount Five Station broadband panel antenna elliptically or circularly polarized	<b>Component Description:</b>	Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Antenna, Attachment 7A section 3-B.
	<b>Amount:</b>	\$40,897.50
	<b>Component Description:</b>	Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Antenna, Attachment 7A section 3-B.
	<b>Amount:</b>	\$20,448.75

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Combiner Installation

**Component Description:**

Invoice is 50%  
Down Payment for  
ATC interim site  
quote. (See  
Attachment 7A).  
This amount is  
50% of Interim  
Combiner  
Installation,  
Attachment 7A  
section 3-C-2.

**Amount:**

\$2,500.00

**Component Description:**

Invoice is 25%  
Down Payment for  
\$64,770.25 ATC  
interim site quote.  
(See Attachment  
7A). This amount  
is 25% of Interim  
Combiner  
Installation,  
Attachment 7A  
section 3-C-2.

**Amount:**

\$1,250.00

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Sweep test of existing antenna	<div data-bbox="719 174 1378 645"> <p><b>Component Description:</b> Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Antenna Line Sweep Test, Attachment 7A section 3-C-2.</p> <p><b>Amount:</b> \$1,250.00</p> </div> <div data-bbox="719 757 1378 1227"> <p><b>Component Description:</b> Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Antenna Line Sweep Test, Attachment 7A section 3-C-2.</p> <p><b>Amount:</b> \$625.00</p> </div>
Dielectric Combiner Installation	<div data-bbox="719 1361 1378 1832"> <p><b>Component Description:</b> Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Combiner Installation, Attachment 6B section 3-C-2.</p> <p><b>Amount:</b> \$4,275.00</p> </div>

<p>Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)</p>	<table> <tr> <td data-bbox="713 100 1141 593"><b>Component Description:</b></td><td data-bbox="1141 100 1428 593"> <p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Antenna Elbow Complex, Attachment 6B section 3-C-2.</p> </td></tr> <tr> <td data-bbox="713 593 1141 705"><b>Amount:</b></td><td data-bbox="1141 593 1428 705"> <p>\$4,500.00</p> </td></tr> </table>	<b>Component Description:</b>	<p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Antenna Elbow Complex, Attachment 6B section 3-C-2.</p>	<b>Amount:</b>	<p>\$4,500.00</p>
<b>Component Description:</b>	<p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Antenna Elbow Complex, Attachment 6B section 3-C-2.</p>				
<b>Amount:</b>	<p>\$4,500.00</p>				
<p>New combiner, cost per channel (without antenna)</p>	<table> <tr> <td data-bbox="713 705 1141 1176"><b>Component Description:</b></td><td data-bbox="1141 705 1428 1176"> <p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Combiner, Attachment 6B section 3-C-1.</p> </td></tr> <tr> <td data-bbox="713 1176 1141 1279"><b>Amount:</b></td><td data-bbox="1141 1176 1428 1279"> <p>\$16,500.00</p> </td></tr> </table>	<b>Component Description:</b>	<p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Combiner, Attachment 6B section 3-C-1.</p>	<b>Amount:</b>	<p>\$16,500.00</p>
<b>Component Description:</b>	<p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Combiner, Attachment 6B section 3-C-1.</p>				
<b>Amount:</b>	<p>\$16,500.00</p>				
<p>Sweep test of existing antenna</p>	<table> <tr> <td data-bbox="713 1279 1141 1780"><b>Component Description:</b></td><td data-bbox="1141 1279 1428 1780"> <p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Antenna Line RF Sweep Test, Attachment 6B section 3-C-2.</p> </td></tr> <tr> <td data-bbox="713 1780 1141 1886"><b>Amount:</b></td><td data-bbox="1141 1780 1428 1886"> <p>\$1,250.00</p> </td></tr> </table>	<b>Component Description:</b>	<p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Antenna Line RF Sweep Test, Attachment 6B section 3-C-2.</p>	<b>Amount:</b>	<p>\$1,250.00</p>
<b>Component Description:</b>	<p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Antenna Line RF Sweep Test, Attachment 6B section 3-C-2.</p>				
<b>Amount:</b>	<p>\$1,250.00</p>				

UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized	<b>Component Description:</b>	Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Antenna, Attachment 6B section 3-B.
	<b>Amount:</b>	\$50,528.25

## 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>\$34,590.75</b>	
Rigid Transmission Line - copper, 8 3/16" broadband	\$488,775.00	\$46,121.00	N/A	\$34,590.75	N/A
<b>Primary Transmission Line</b>	<b>\$943,950.00</b>	<b>\$130,933.50</b>		<b>\$17,958.42</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
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

TX line reducers	<b>\$4,500.00</b>	\$4,500.00	Required for line adapter from 7-3/16" to 6-1/8" combiner aux interconnect.	N/A	N/A
Rigid Transmission Line - copper, 8 3/16"	\$884,850.00	\$71,833.50	Primary Site Transmission Line (pro rata share). See Attachment 6B section 3-A.	\$17,958.42	N/A
<b>Sub-total</b>	\$1,432,725.00	\$177,054.50	N/A	\$52,549.17	N/A
<b>Total for all systems</b>	\$8,936,193.28	\$5,344,320.00	N/A	\$3,534,865.71	N/A

## Components

Actual Information	
Description	File Name

Rigid Transmission Line - copper, 8 3/16" broadband	<b>Component Description:</b>	Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Transmission Line, Attachment 7A section 3-A.
	<b>Amount:</b>	\$23,060.50
	<b>Component Description:</b>	Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Transmission Line, Attachment 7A section 3-A.
	<b>Amount:</b>	\$11,530.25
Interconnect tx line aux	Information not provided.	
Interconnect tx line main	Information not provided.	
Gas Blocks	Information not provided.	
TX line reducers	Information not provided.	
Rigid Transmission Line - copper, 8 3/16"	<b>Component Description:</b>	Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Transmission Line, Attachment 6B section 3-A.
	<b>Amount:</b>	\$17,958.42

**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>\$882,066.67</b>	<b>\$320,083.34</b>		<b>\$80,020.83</b>	
Tower Construction Management	<i>\$10,000.00</i>	\$10,000.00	Modification project management and RF installation project management - Flat Fee. See Attachment 6B section 3- D-1.	\$2,500.00	N/A
Structural engineering tower load study for a documented tower with candelabra	\$20,000.00	\$6,516.67	Pro-Rata Share. See Attachment 6B Section 3- A-1	\$1,629.16	N/A

Primary Tower Mapping	<b>\$8,266.67</b>	\$8,266.67	Structural tower mapping to ensure the proper structural information is relayed to engineering for the rigorous structural assessment for the proposed repack equipment. See Attachment 6B section 3-A-1.	\$2,066.67	N/A
Site Security	<b>\$1,800.00</b>	\$1,800.00	Site security for installation and storage of Transmission line and materials for 9 days X 12 hours. These materials are a high risk of theft due to the material makeup such as copper, brass and aluminum. See Attachment 6B Section 1-B-1.	\$450.00	N/A



Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$136,000.00	N/A	\$34,000.00	N/A
Major tower reinforcement /modifications	\$421,000.00	\$157,500.00	N/A	\$39,375.00	N/A
<b>Auxiliary Tower GTOWER</b>	<b>\$659,080.00</b>	<b>\$124,580.00</b>		<b>\$105,926.25</b>	
Interim Tower Mapping	<b>\$2,480.00</b>	\$2,480.00	Structural tower mapping to ensure the proper structural information is relayed to engineering for the rigorous structural assessment for the proposed repack equipment. See Attachment 7 section 3-A-1.	\$1,860.00	N/A

Interim Tower Rent	<b>\$57,600.00</b>	\$57,600.00	Flat rate for rental of interim tower while work is being done at the primary tower required to permit stations to continue broadcasting during modification in a safe and timely manner. See Attachment 6A, section 1-B-1.	\$57,600.00	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$45,000.00	N/A	\$33,750.00	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$15,000.00	N/A	\$11,250.00	N/A
Structural engineering tower load study for a documented tower with candelabra	\$20,000.00	\$4,500.00	N/A	\$1,466.25	N/A
<b>Sub-total</b>	\$1,541,146.67	\$444,663.34	N/A	\$185,947.08	N/A
<b>Total for all systems</b>	\$8,936,193.28	\$5,344,320.00	N/A	\$3,534,865.71	N/A

## Components

Actual Information	File Name	
Description		
Tower Construction Management	<b>Component Description:</b>	Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Tower Construction Management, Attachment 6B section 3-D-1.
	<b>Amount:</b>	\$2,500.00
Structural engineering tower load study for a documented tower with candelabra	<b>Component Description:</b>	Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Tower Structural Analysis, Attachment 6B section 3-A-1.
	<b>Amount:</b>	\$1,629.16
Primary Tower Mapping	<b>Component Description:</b>	Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Tower Mapping, Attachment 6B section 3-A-1.
	<b>Amount:</b>	\$2,066.67

Site Security	<div> <b>Component Description:</b> <p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Site Security, Attachment 6B section 1-B-1.</p> </div> <div> <b>Amount:</b> <p>\$450.00</p> </div>
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	<div> <b>Component Description:</b> <p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Tower Rigging, Attachment 6B section 3-C-1.</p> </div> <div> <b>Amount:</b> <p>\$34,000.00</p> </div>
Major tower reinforcement /modifications	<div> <b>Component Description:</b> <p>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Tower Reinforcement, Attachment 6B section 3-C-2.</p> </div> <div> <b>Amount:</b> <p>\$39,375.00</p> </div>

Interim Tower Mapping	<div data-bbox="707 174 1011 208"><b>Component Description:</b></div> <div data-bbox="1147 174 1366 562">Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Mapping, Attachment 7A section 3-A-1.</div> <div data-bbox="707 575 815 604"><b>Amount:</b></div> <div data-bbox="1147 575 1265 604">\$1,240.00</div> <div data-bbox="707 714 1011 748"><b>Component Description:</b></div> <div data-bbox="1147 714 1374 1102">Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Tower Mapping, Attachment 7A section 3-A-1.</div> <div data-bbox="707 1115 815 1144"><b>Amount:</b></div> <div data-bbox="1147 1115 1244 1144">\$620.00</div>
Interim Tower Rent	<div data-bbox="707 1285 1011 1319"><b>Component Description:</b></div> <div data-bbox="1147 1285 1361 1435">Interim Tower Rental - Flat Rate. See Attachment 6A, section 1-B-1.</div> <div data-bbox="707 1447 815 1476"><b>Amount:</b></div> <div data-bbox="1147 1447 1279 1476">\$57,600.00</div>

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	<b>Component Description:</b>	Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Rigging, Attachment 7A section 3-C-1.
	<b>Amount:</b>	\$22,500.00
	<b>Component Description:</b>	Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Tower Complex Rigging, Attachment 7A section 3-C-1.
	<b>Amount:</b>	\$11,250.00

Minor tower reinforcement /modifications	<b>Component Description:</b>	Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Tower Reinforcement, Attachment 7A section 3-A-2.
	<b>Amount:</b>	\$7,500.00
	<b>Component Description:</b>	Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Tower Reinforcement, Attachment 7A section 3-A-2.
	<b>Amount:</b>	\$3,750.00

Structural engineering tower load study for a documented tower with candelabra

**Component Description:**

Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Tower Structural Analysis, Attachment 7A section 3-A-1.

**Amount:**

\$977.50

**Component Description:**

Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Tower Structural Analysis, Attachment 7A section 3-A-1.

**Amount:**

\$488.75



## 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>\$82,645.00</b>	<b>\$70,825.00</b>		<b>\$17,194.17</b>	
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$10,825.00	Engineering studies for new channel assignment and antenna development. See Attachments 6 and 7 section 1-A-1 (\$5,000 each) and Attachment 16 (\$825).	\$5,825.00	N/A
RF System Tests	<i>\$10,000.00</i>	\$10,000.00	Testing of the primary and interim combiners to ensure all frequencies are tuned for optimal patterns. See Attachments 6A and 7A section 1-B-1.	\$5,000.00	N/A
RF Exposure Measurements	\$21,050.00	\$8,000.00	N/A	\$1,250.00	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
Project management of the transition	\$39,500.00	\$37,500.00	N/A	\$3,494.17	N/A
<b>Sub-total</b>	\$82,645.00	\$70,825.00	N/A	\$17,194.17	N/A
<b>Total for all systems</b>	\$8,936,193.28	\$5,344,320.00	N/A	\$3,534,865.71	N/A

## Components

Actual Information	
Description	File Name
Perform engineering study for new channel assignment and antenna development	<p><b>Component Description:</b> Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Antenna Development, Attachment 7A section 1-A-2.</p> <p><b>Amount:</b> \$2,500.00</p>

<b>Component Description:</b>	Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B). This amount is 25% of primary antenna development, Attachment 6B section 1-A-2.
<b>Amount:</b>	\$1,250.00

<b>Component Description:</b>	Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Antenna Development, Attachment 7A section 1-A-2.
<b>Amount:</b>	\$1,250.00

<b>Component Description:</b>	Conduct preliminary review of repacked channel with prospective shared antenna. See Attachment 16.
<b>Amount:</b>	\$825.00

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RF System Tests

**Component Description:**

Invoice is 50%  
Down Payment for  
ATC interim site  
quote. (See  
Attachment 7A).  
This amount is 50%  
of Interim Combiner  
Tests, Attachment  
7A section 1-B-1.

**Amount:**

\$2,500.00

**Component Description:**

Invoice is 25%  
Down Payment for  
\$187,690.00 ATC  
primary site quote.  
(See Attachment  
6B.) This amount is  
25% of Primary  
Combiner Tests,  
Attachment 6B  
section 1-B-1.

**Amount:**

\$1,250.00

**Component Description:**

Invoice is 25%  
Down Payment for  
\$64,770.25 ATC  
interim site quote.  
(See Attachment  
7A). This amount is  
25% of Interim  
Combiner Tests,  
Attachment 7A  
section 1-B-1.

**Amount:**

\$1,250.00

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RF Exposure Measurements	<div> <div><b>Component Description:</b></div> <div>Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Antenna RF Exposure Measurements, Attachment 6B section 1-A-4.</div> </div> <div> <div><b>Amount:</b></div> <div>\$1,250.00</div> </div>
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	<div> <div><b>Component Description:</b></div> <div>Develop final ERP and operating parameters for Construction Permit application. See Attachment 16.</div> </div> <div> <div><b>Amount:</b></div> <div>\$1,625.00</div> </div>

Project management of the transition		
	<b>Component Description:</b>	Project Management and Repack Implementation. Review American Tower site plans.
	<b>Amount:</b>	\$337.50
	<b>Component Description:</b>	Project Management and Repack Implementation. Please see Attachment 15.
	<b>Amount:</b>	\$3,156.67

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
Other Expenses	\$106,810.00	\$99,510.00		\$26,255.00	
ATC Proj Mgmt	<i>\$18,960.00</i>	\$18,960.00	American Tower project management and oversight for primary tower. See Attachments 6B and 7A, section 1-A-1.	\$9,480.00	N/A
Non-zoning permits	<i>\$20,300.00</i>	\$20,300.00	Prepare drawings for permits and permit filing costs for Main and Interim tower work. See Attachments 6B and 7, sections 3-D-1 and 1-A-3.	\$10,150.00	N/A

Address Transition Timing	<b>\$5,000.00</b>	\$5,000.00	Coordination and transition planning with all parties onsite and management of the timelines and schedules occurring during the repack. See Attachments 6B and 7A section 1-A-1.	\$2,500.00	N/A
Site Coordination Meetings	<b>\$3,500.00</b>	\$3,500.00	Site coordination meetings with all broadcasters, contractors and vendors involved with the site project. See Attachments 6 and 7 section 1-B-1.	\$1,375.00	N/A
Main tx internal tx line	<b>\$7,000.00</b>	\$7,000.00	Install line from transmitter to combiner and test.	N/A	N/A
Interim site tx internal tx line	<b>\$4,000.00</b>	\$4,000.00	Install line from transmitter to combiner and test.	N/A	N/A
MVPD Notification of Channel Change	<b>\$1,500.00</b>	\$1,500.00	N/A	N/A	N/A



Develop and air announcement of upcoming channel change	<b>\$0.00</b>	\$0.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<b>\$15,000.00</b>	\$15,000.00	N/A	\$2,083.33	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<b>\$20,000.00</b>	\$20,000.00	Remove and dispose of transmitter and associated non-reused equipment.	\$666.67	N/A
DTV Medical Facility Notification	\$11,550.00	\$4,250.00	N/A	N/A	N/A
<b>Sub-total</b>	\$106,810.00	\$99,510.00	N/A	\$26,255.00	N/A
<b>Total for all systems</b>	\$8,936,193.28	\$5,344,320.00	N/A	\$3,534,865.71	N/A

## Components

**Actual Information**  
**Description**

**File Name**

ATC Proj Mgmt	<div data-bbox="715 174 1374 645"> <p><b>Component Description:</b> Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Tower Project Management, Attachment 7A section 1-A-1.</p> <p><b>Amount:</b> \$4,740.00</p> </div> <div data-bbox="715 757 1374 1227"> <p><b>Component Description:</b> Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Tower Project Management, Attachment 7A section 1-A-1.</p> <p><b>Amount:</b> \$2,370.00</p> </div> <div data-bbox="715 1339 1374 1809"> <p><b>Component Description:</b> Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Tower Project Management, Attachment 6B section 1-A-1.</p> <p><b>Amount:</b> \$2,370.00</p> </div>
Non-zoning permits	

**Component Description:**

Invoice is 50%  
Down Payment for  
ATC interim site  
quote. (See  
Attachment 7A).  
This amount is  
50% of Interim  
Interim Building  
and Tower  
drawings and  
building permit  
fees. See  
Attachment 7A  
sections 3-D-1 and  
1-A-3.

**Amount:**

\$5,075.00

**Component Description:**

Invoice is 25%  
Down Payment for  
\$187,690.00 ATC  
primary site quote.  
(See Attachment  
6B.) This amount  
is 25% of Primary  
Building and  
Tower drawings  
and building permit  
fees. See  
Attachment 6B  
sections 3-D-1  
(\$1,175 plus  
\$1,175) and 1-A-3  
(\$187.50).

**Amount:**

\$2,537.50

**Component Description:**

Invoice is 25%  
Down Payment for  
\$64,770.25 ATC  
interim site quote.  
(See Attachment  
7A). This amount  
is 25% of Interim  
Building and  
Tower drawings  
and building permit  
fees. See  
Attachment 7A  
sections 3-D-1 and  
1-A-3.

**Amount:**

\$2,537.50

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Address Transition Timing

**Component Description:**

Invoice is 50%  
Down Payment for  
ATC interim site  
quote. (See  
Attachment 7A).  
This amount is  
50% of Interim  
Address Transition  
Timing,  
Attachment 7A  
section 1-A-1.

**Amount:**

\$1,250.00

**Component Description:**

Invoice is 25%  
Down Payment for  
\$64,770.25 ATC  
interim site quote.  
(See Attachment  
7A). This amount  
is 25% of Interim  
Address Transition  
Timing,  
Attachment 7A  
section 1-A-1.

**Amount:**

\$625.00

**Component Description:**

Invoice is 25%  
Down Payment for  
\$187,690.00 ATC  
primary site quote.  
(See Attachment  
6B.) This amount  
is 25% of Primary  
Tower Address  
Transition Timing,  
Attachment 6B  
section 1-A-1.

**Amount:**

\$625.00

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Site Coordination Meetings	<div data-bbox="715 174 1378 645"> <p><b>Component Description:</b> Invoice is 50% Down Payment for ATC interim site quote. (See Attachment 7A). This amount is 50% of Interim Site Coordination Meetings, Attachment 7A section 1-B-1.</p> <p><b>Amount:</b> \$500.00</p> </div> <div data-bbox="715 757 1378 1227"> <p><b>Component Description:</b> Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Site Coordination Meetings, Attachment 6B section 1-B-1.</p> <p><b>Amount:</b> \$625.00</p> </div> <div data-bbox="715 1339 1378 1809"> <p><b>Component Description:</b> Invoice is 25% Down Payment for \$64,770.25 ATC interim site quote. (See Attachment 7A). This amount is 25% of Interim Site Coordination Meetings, Attachment 7A section 1-B-1.</p> <p><b>Amount:</b> \$250.00</p> </div>
Main tx internal tx line	Information not provided.
Interim site tx internal tx line	Information not provided.
MVPD Notification of Channel Change	Information not provided.

Develop and air announcement of upcoming channel change	Information not provided.
Equipment Delivery and Handling Charges	<p><b>Component Description:</b> Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Tower Equipment Delivery and Handling, Attachment 6B section 1-A-4.</p> <p><b>Amount:</b> \$2,083.33</p>
Disposal Costs (for equipment and other waste, net of any salvage value)	<p><b>Component Description:</b> Invoice is 25% Down Payment for \$187,690.00 ATC primary site quote. (See Attachment 6B.) This amount is 25% of Primary Site Disposal Costs, Attachment 6B section 1-A-4.</p> <p><b>Amount:</b> \$666.67</p>
DTV Medical Facility Notification	Information not provided.

<b>Cost Information</b>	<b>Grand Total</b>		
		<b>Predetermined Cost Estimate</b>	<b>Estimated Cost</b>
			<b>Actual Cost</b>
	<b>Total for all systems</b>	\$8,936,193.28	\$5,344,320.00
			\$3,534,865.71

<b>Reimbursement Status</b>	<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
	Submission of Estimated Expenses Statements	<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>09/10/2019</p>

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS 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 AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		<ol style="list-style-type: none"> <li>1. The Authorized Person signing below certifies and represents 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 certifies that the statements in this form and attached documentation are true, complete, and correct.</li> <li>3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> </ol>	

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. 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 (full power and Class A stations) and/or otherwise modify a television station's facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. 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.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

<p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite 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>09/10/2019</p>

## Attachments