

Federal Communications Commission

### (REFERENCE COPY - Not for submission)

## FCC Form 399: Reimbursement Request

				-		
F	acility	74112	Service: DTV	Call	WTOG	Channel: 19 (UHF)
П	D:			Sign:		
F	ile	000002	27117			
٢	lumber:					
F	RN: 002	8930774	Date	04/01		
			Submitted:	/2019		

# Applicant Name, Type, and Contact Information

## Information

Applicant	Address	Phone	Email	Applicant Type
CBS OPERATIONS INC. Doing Business As: CBS OPERATIONS 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 Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer	Preparer Contact Name and Information				
Contact Information	Applicant	Address	Phone	Email	
inormation	Daniel G Ryson CBS	Daniel G. Ryson 1725 DeSales Street NW Suite 501 Washington, DC 20036 United States	+1 (202) 457-4074	dryson@cbs.com	

Broadcaster	Question	Response
Information and Transition Plan	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	Temporarily move to an interim site with a broadband antenna. Install a broadband transmitter capable of operating on pre and post transition channels for use when present site is rebuilt with new antenna, transmission line, and transmitter equipment.

Transmitters	Section	Question	Response
	Transmitter Related Expenses	Do you have transmitter related expenses?	Yes

Primary	Existing Transmitter Information					
Transmitter	Section	Question	Response			
	Existing Transmitter Description	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			
	Existing Transmitter	Manufacturer				
	Manufacturer and Type	Model	DCX			
		Year	2001			
		Туре	Inductive Output Tube			
		IOT Power Type	Two			
		Power Capacity	50 kW			

### **Existing Transmitter Information**

Primary	New Transmitter Costs					
Transmitter	Section	Question	Response			
	New Transmitter	Use	Primary (Main)			
		Change Type	Purchase New			
		Is this a request for upgraded equipment?	Yes			
		Manufacturer				
		Model	ULXTED-80			
		Transmitter Type	Solid State			
		Solid State Cooling	Liquid Cooled			
		Solid State Power capacity	50.6 kW			
		Justification for New Transmitter	Comark will not re-tune any IOT transmitter (see Attachment 1). Proposed "upgraded" transmitter (see Attachment 15) costs more than "non- upgraded" transmitter (see Attachment 3) which is basis for reimbursement.			

Primary	Other Transmitter Costs					
Transmitter	Section	Question	Response			
	Electrical Service	Service Entrance (3 phases 800A 208V)	Yes			
	Switchgear (industrial 800 amp) Transformer (480V)	Switchgear (industrial 800 amp)	Yes			
		Transformer (480V)	Yes			

#### Other Transmitter Costs

	Power	500 kVA
	Rigid Conduit and Wiring	Yes
	Size	2 inches
	Length	200.0 feet
	Other Electrical Service	Yes
	Description	100 linear feet of 4- inch conduit.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Туре	Cooling Only
	Size	15 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	Yes
	Size	3200.0 square feet
Channel 14 Costs	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 Other Transmitter Cost Not Listed

Transmitter 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-60			
		Transmitter Type	Solid State			
		Solid State Cooling	Liquid Cooled			
		Solid State Power capacity	30 kW			
		Justification for New Transmitter	Interim transmitter and site required while main tower is reinforced and main site is rebuilt. Broadband PAs specified. See Statement 2.			

Interim	Other Transmitter Costs						
Transmitter	Section	Question	Response				
	Electrical Service	Service Entrance (3 phases 800A 208V)	No				
		Switchgear (industrial 800 amp)	No				
		Transformer (480V)	Yes				
		Power	150 kVA				

#### Other Transmitter Costs

	Rigid Conduit and Wiring	Yes
	Size	3 inches
	Length	100.0 feet
	Other Electrical Service	No
	Description	N/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Туре	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	Yes

## Interim Other Transmitter Cost Not Listed

Transmitter Information not provided.

Antennas Section		Question	Response
Antenna Rela	ated Expenses	Do you have antenna related expenses?	Yes

Auxiliary					
Antenna	Section	Question	Response		
	Existing Antenna Description	Type of change	Purchase New		
		Antenna Use	Auxiliary (Backup)		
		Description of Use	Emergency Only		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is this antenna currently shared with any other stations?	No		
		Is this antenna directional?	No		
		Is antenna in operating condition?	Yes		
		Is antenna located on or in close proximity to an antenna farm?	No		
	Existing Antenna	Class	Full Power		
	Manufacturer and Type	Mounting	Side Mount		
		Antenna position in stack	Not in Stack		
		Polarization	Horizontal		
		Туре	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)	298.0 kW		

# Add Antenna Information

Manufacturer	
Model	SW-16
Year	1988

Auxiliary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Auxiliary (Backup)	
		Description of Use	Auxiliary (Post Transition)	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	Yes	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	No	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna	Class	Full Power	
	Manufacturer and Types	Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Elliptical	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels/Bays	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Design power capacity in use	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	298.0 kW	
		Manufacturer		

Model	TFU- 24DSC-R O4
Year	2019
Justification for New Antenna	Existing auxiliary antenna is narrowband and not suitable for use on channel 19.

### Other Antenna Costs

Auxiliary Antenna

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Туре	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	6 1/8 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No

Sweep	Test
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#### Auxiliant Other Antenna Cost Not Listed

AuxiliaryOther Antenna CostAntennaInformation not provided.

Primary	Existing Antenna Information			
Antenna	Section	Question	Response	
	Existing Antenna Description	Type of change	Purchase 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	Class	Full Power	
	Manufacturer and Type	Mounting	Top Mount	
		Antenna position in stack	Bottom	
		Polarization	Horizontal	
		Туре	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)	550.0 kW	

Manufacturer	
Model	TFU-30E
Year	1987

Primary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	No	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna	Class	Full Power	
	Manufacturer and Types	Mounting	Top Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Elliptical	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels/Bays	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Design power capacity in use	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	700.0 kW	
		Manufacturer		
			1	

Model	TFU-27ETT /VP-R O6
Year	2019
Justification for New Antenna	Present owned antenna is narrowband and will not work on post- transition channel.

### Other Antenna Costs

Primary Antenna

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Туре	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	8 3/16 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	No
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No

Sweep Test	Do you require the sweep testing of	Yes
	transmission line and antenna?	

Primary	Other Antenna Cost Not Listed	
Antenna	Name	Description
	Mounting Adapter	Five foot Mounting Adapter allows antenna to mount onto tower top plate.

Interim	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Interim	
		Description of Use	N/A	
		Change Type	Rent Temporary	
		Ownership	Leased	
		Owner	Florida West Coast Public Broadcasting, Inc.	
		Is antenna shared?	No	
		Is antenna directional?	No	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna Manufacturer and Type	Class	Full Power	
		Mounting	Top Mount	
		Antenna position in stack	Bottom	
		Polarization	Horizontal	
		Туре	Broadband Panel	
		Number of Stations Supported	1	
		Number of Panels/Bays	12	
		Lower Limit	470.00 MHz	
		Upper Limit	713.00 MHz	
		Design power capacity in use	0.0 %	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	417.0 kW	
		Manufacturer		

Model	TUP-05-12- 60-1
Year	2006
Justification for New Antenna	Renting Existing Antenna.

# Interim Other Antenna Costs

Antenn	а

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	No
	Broadband or Single Channel?	N/A
	Feed Line Size	N/A
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	No
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim	Other Antenna Cost Not Listed	
Antenna	Name	Description
	Test Adapter	Test adapter for detailed measurement of interim antenna and line.

Transmissior	n Seffien	Question	Response
	Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

Auxiliary	Add Transmission Line			
Transmissio	n Line Section	Question	Response	
	Existing Transmission Line Description	Type of change	Purchase New	
		Use	Auxiliary (Backup)	
		Description of Use	Backup	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is this transmission currently shared with any other stations?	No	
		Is Transmission Line in operating condition?	Yes	
	Existing Transmission	Manufacturer		
	Line Manufacturer and Type	Туре	Rigid	
		Diameter	8 3/16 inches	
		Other Diameter	N/A	
		Segment Length	20 inches	
		Other Segment Length	N/A	
		Number of parallel runs	1	
		Length	1000 feet per run	

Auxiliary	New Transmission Line		
Transmissio	New Transmission Line Costs	Question	Response
		Use	Auxiliary (Backup)
		Description of Use	Backup
		Change Type	Purchase New
		Is this a request for upgraded equipment?	No
		Туре	Rigid
		Diameter	8 3/16 inches
		Other Diameter	N/A
		Segment Length	20 inches
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	1000 feet per run
		Justification for New Transmission Line	Please see Statement 2.

Other Transmission Line Expenses Not Listed Auxiliary Other Transmission Transmission

Primary	Existing Transmission Line			
Transmissio	on Line Section	Question	Response	
	Existing Transmission Line Description	Type of change	Purchase 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?	No	
		Is Transmission Line in operating condition?	Yes	
	Existing Transmission	Manufacturer		
	Line Manufacturer and Type	Туре	Waveguide	
		Diameter	N/A	
		Other Diameter	N/A	
		Segment Length	N/A	
		Other Segment Length	N/A	
		Number of parallel runs	1	
		Length	1492 feet per run	

**Existing Transmission Line** 

Primary	New Transmission Line			
Transmissio	on Line Section	Question	Response	
	New Transmission Line Costs	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Туре	Rigid	
		Diameter	8 3/16 inches	
		Other Diameter	N/A	
		Segment Length	20 inches	
		Other Segment Length	N/A	
		Number of parallel runs	1	
		Length	1540 feet per run	
		Justification for New Transmission Line	Present waveguide will not work on post- transition channel and must be removed to reduce tower windloading. (Line Length reduced from 1600 to 1540 feet after 3/2019 site survey)	

Primary Other Transmission Line Expenses Not Listed

Primary Other Transmission Transmission

Interim	New Transmission Line		
Transmissio	Section	Question	Response
	New Transmission Line	Use	Interim
	Costs	Description of Use	N/A
		Change Type	Purchase New
		Туре	Rigid
		Diameter	6 1/8 inches
		Segment Length	20'
		Other Segment Length	
		Number of parallel runs	1
		Length	100 feet per run
		Justification for New Transmission Line	Required for interconnect to interim antenna.

Other Transmission Line Expenses Not Listed Transmission

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

Primary	Add Tower			
Tower	Section	Question	Response	
	Existing Tower	Type of change	Modify Existing	
	Description	Tower Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Leased	
		Is this tower consider Complex?	No	
		Is this tower currently shared with any other stations?	No	
		One or more FM, AM or TV radio broadcaster(s)	N/A	
		Others Types of Users	N/A	
		Is tower documented for structural analysis?	Unknown	
		Is tower compliant with Rev G?	No	
	Existing Tower	Do you have a tower registration number?	Yes	
	Structure Registration	ASR Number	1030952	
	Coordinates (NAD83 (	Latitude (NAD83)	27° 49' 47.1" N-	
	North American Datum of 1983))	Longitude (NAD83)	082° 15' 58.3" W-	
		Overall Structure Height	1574.13 feet	
		Support Structure Height	1451.75 feet	
		Ground Elevation Above Mean Sea Level (AMSL)	74.80 feet	

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	American Towers LLC
Date Constructed	02/01/2018

# Primary Tower Modification Costs

	-
Tower	

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	Study needed for undocumented /poorly documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	Major Reinforcements needed

# Primary Tower Rigging Costs

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

Primary Tower	Other Tower Expenses Not Listed		
	Name	Description	
	Tower Permit Packages	Construction drawings for tower, ground and building. Required for local permits.	

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	250
		Explanation	Company lacks sufficient internal resources.
	Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
		Prepare engineering section of Form FCC Construction Permit Application	Yes
		For Auxiliary Facility	Yes
		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	Yes
		Quantity	1
		Do you have Distributed Transmission System engineering services?	N/A
		Critical Facility	N/A
		Terrain-Shielded Facility	N/A
	Attorney and Other Outside Consulting Services	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	Yes
	Environmental Assessment	Yes
	ASR Modification	Yes
	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	Yes
RF Field Engineering Services	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 Other Professional Services Expenses Not Listed Professional Services roopstsided.

Other Expenses	Section	Question	Response
	AM Pattern Disturbance	Is an Impact Study needed?	No
		Is Remediation needed?	No
	Facility Expenses	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
	Permit and Filing Costs	Local Zoning	Yes
		Non-zoning permits	Yes
		BLM or NFS Coordination	No
		FCC Construction Permit Minor Change	No
		FCC License to Cover Application	Yes
		FCC Special Temporary Authority Application	Yes
	Other Miscellaneous Expenses	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?	No
		Does this relocation require MVPD Notification of a Channel Change?	Yes

# Other Expenses Not Listed

**Expenses** Information not provided.

### Transmitters

### Cost Information

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 Justificatior
Interim Transmitter ULXTE-60	\$1,125,250.00	\$1,135,082.22		\$681,468.47	
3" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$5,000.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	\$947,000.00	\$977,574.60	Includes Attachment 21 Items A,B, E and change orders shown in Attachment 22. Does not include RF Accessories, Step-Down transformer, and shipping shown elsewhere.	\$633,859.80	N/A
Transformer 3 phase /480v - 150 KVA	\$25,550.00	\$9,007.62	See Attachment 21, Item D	\$6,543.38	N/A
UHF inside RF system including switching	\$147,500.00	\$143,500.00	Includes Attachment 21 Item C. There will also be some labor involved to install switching and transmission line.	\$41,065.29	N/A

Primary Transmitter ULXTED-80	\$1,645,510.00	\$1,566,190.00		\$430,923.86	
Other Building Addition Size: 3200.0	\$91,200.00	\$91,200.00	2 story building with tiltup walls to match existing broadcast facility. Includes galvanized stairs, steel doors, and concrete block walls for separate tenant suites. See Attachments 5 and 6.	N/A	N/A
15 Ton system	\$55,800.00	\$42,400.00	See Attachment 5.	N/A	N/A
Other Electrical Service: 100 linear feet of 4- inch conduit.	\$3,840.00	\$3,840.00	100' L/F of 4" conduit and larger conductor to adequately bring an additional 500 KVA power needed for the new transmitters, HVAC, Air handlers, and house power. See Attachment 5.	N/A	N/A

2" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$2,000.00	This cost includes 200 L /F of 2" conduit and conductor to adequately supply the HVAC, Airhandlers and House power. The existing power supply is inadequate for the additional power demands of the new repack equipment. See Attachment 5.	N/A	N/A
Transformer 3 phase /480v - 500 KVA	\$48,400.00	\$18,400.00	Install 500 KVA transformer to support transmitter, heat exchangers and other equipment on the new repack frequency into the broadband antenna. See Attachment 5.	N/A	N/A

Switchgear - industrial	\$38,200.00	\$14,400.00	New Switchgear	N/A	N/A
800 amp			required		
			accommodating		
			additional		
			repack		
			equipment.		
			This switch is		
			used with the		
			addition of the		
			500 KVA		
			transformer		
			installation.		
			This space		
			does lacks		
			required power		
			for multiple		
			transmitters.		
			See		
			Attachment 6.		
UHF -	\$1,388,470.00	\$1,388,470.00	See Statement	\$430,923.86	N/A
Liquid			2 and		
Cooled			Attachment 3.		
Solid State			Comparable		
Transmitter			IOT pricing is		
50.6 kW			less expensive		
			than solid state		
			transmitter		
			being		
			proposed.		
Service	\$14,400.00	\$5,480.00	Pro rata cost.	N/A	N/A
entrance 3			See		
phase/800 amp/208 volt			Attachment 5.		
Sub-total	\$2,770,760.00	\$2,701,272.22	N/A	\$1,112,392.33	N/A
Total for all systems	\$5,492,989.11	\$4,685,853.83	N/A	\$1,395,139.79	N/A

Actual Information Description	File Name
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.

UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	Component Description:	Invoice is for transmitter down payment originally based on Attachment 21 items A, B, C, D, E. The portion
	Amount:	shown here is the split appropriate for items A&B only. \$310,446.81
	Component Description:	Invoice is for transmitter down payment originally based on Attachment 21 items A, B, C, D, E. The portion shown here is the split appropriate for items A&B only. \$323,412.99

I50 KVA	Component Description:	Invoice is for
	component Description.	transmitter down
		payment originally
		based on
		Attachment 21
		items A, B, C, D,
		E. The portion
		shown here is the
		split appropriate
		for items D only.
	Amount:	\$3,204.76
	Component Description:	Invoice is for
		transmitter down
		payment originally
		based on
		Attachment 21
		items A, B, C, D,
		E. The portion
		shown here is the
		split appropriate
		for items D only.
		(Fractional cent
		rounded up to
		assure split cost
		equals total
		invoice.)
	Amount:	•
	Amount.	\$3,338.62

UHF inside RF system		
including switching	Component Description:	Invoice is for transmitter down payment originally based on Attachment 21 items A, B, C, D, E. The portion shown here is the split appropriate for item C only. \$20,952.66
	Component Description:	Invoice is for transmitter down payment originally based on Attachment 21 items A, B, C, D, E. The portion shown here is the split appropriate for item C only. \$20,112.63
Other Building Addition Size: 3200.0	Information not provided.	
15 Ton system	Information not provided.	
Other Electrical Service: 100 linear feet of 4-inch conduit.	Information not provided.	
2" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	
Transformer 3 phase/480v - 500 KVA	Information not provided.	
Switchgear - industrial 800 amp	Information not provided.	

UHF - Liquid Cooled Solid			
State Transmitter 50.6 kW	<b>Component Description:</b>	Invoice is for main	
		transmitter down	
		payment originally	
		based on	
		Attachment 2,	
		which has since	
		been superseded	
		by Attachment	
		2A. See	
		Statement 2.	
	Amount:	\$430,923.86	
Service entrance 3 phase /800 amp/208 volt	Information not provided.		

#### Antennas

#### Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TUP-05-12- 60-1	\$374,144.11	\$123,599.11		\$11,099.11	
Test Adapter	\$4,914.11	\$4,914.11	See Attachment 30 for quote. Also Includes shipping shown in invoice 237003, Attachment 33B.	\$4,914.11	Includes shipping.
Sweep test of existing antenna	\$6,730.00	\$6,185.00	Please see estimates in Attachment 34 (preliminary measurement) and Attachment 36 (final measurement).	\$6,185.00	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	\$247,000.00	\$0.00	Renting an existing but unused antenna.	N/A	N/A

Interim antenna rental and installation - Cost will depend on antenna size and height and /or complexity of tower.	\$115,500.00	\$112,500.00	Cost is preliminary. Still being negotiated.	N/A	N/A
Primary Antenna TFU-27ETT /VP-R O6	\$337,280.00	\$243,078.00		\$109,385.10	
Mounting Adapter	\$25,800.00	\$25,800.00	See Attachment 13 Line Item 2	\$11,610.00	N/A
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	\$15,250.00	\$13,583.00	See Attachment 13 Line Item 3	\$6,112.35	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	See Attachment 13 - Line item 24	\$2,880.00	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$197,295.00	See Attachment 13 Line 1 minus \$29,175 for non- reimbursable V-Pol contribution.	\$88,782.75	N/A

Auxiliary Antenna TFU- 24DSC-R O4	\$269,180.00	\$144,575.00		\$3,275.00	
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$16,425.00	See Attachment 16 Line Item 3. This is for the comparable Dielectric TFU- 16DSC-R O4 antenna, not the upgraded Dielectric TFU- 24DSC-R O4 antenna (Attachment 19) that we're installing.	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$9,150.00	See Attachment 16 Line Item 4. This is for the comparable Dielectric TFU- 16DSC-R O4 antenna, not the upgraded Dielectric TFU- 24DSC-R O4 antenna (Attachment 19) that we're installing.	N/A	N/A

UHF -	\$227,000.00	\$115,725.00	See	N/A	N/A
Lower			Attachment 16		
Power			Line Item 1.		
Side			This is for the		
Mount,			comparable Dielectric TFU-		
One			16DSC-R O4		
station					
antenna			H-Pol antenna, not the		
200-500					
kW,			upgraded (due		
elliptically			to higher gain)		
Or Sincularly			Dielectric TFU-		
circularly			24DSC-R O4		
polarized			antenna		
			(Attachment		
			19) that we're		
			installing.		
Sweep test	\$6,730.00	\$3,275.00	Auxiliary and	\$3,275.00	N/A
of existing			Interim		
antenna			antenna were		
			measured at		
			the same time		
			SO		
			measurement		
			cost was split		
			50/50 between		
			cost		
			categories.		
			See		
			Attachment		
			38.		
Sub-total	\$980,604.11	\$511,252.11	N/A	\$123,759.21	N/A
Total for all systems	\$5,492,989.11	\$4,685,853.83	N/A	\$1,395,139.79	N/A

Actual Information	
Description	File Name

Test Adapter		
	Component Description: Amount:	Test adapter for 7- inch line. Required to determine that WEDU antenna and transmission line are viable and do not need to be replaced. \$4,914.11
Sweep test of existing		
antenna	Component Description:	Interim and Aux antenna and line were measured in the same trip so measurement cost was divided between cost categories. (Note: The company name includes an ampersand that Form won't accept.) \$3,275.00
	Component Description:	See Attachment 34 for quotation
	Amount:	\$2,910.00
UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	Information not provided.	
Interim antenna rental and installation - Cost will depend on antenna size and height and/or complexity of tower.	Information not provided.	

Mounting Adapter		
	Component Description:	Mounting Adapte Down Payment. See Exhibit 13 fo quote.
	Amount:	\$11,610.00
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	Component Description:	Elbow Complex down payment. See Attachment
	Amount:	13 for quote. \$6,112.35
Sweep test of existing		
antenna	Component Description:	Sweep Test dow payment. See Attachment 13 fo
	Amount:	quote. \$2,880.00
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	Component Description:	Primary Antenna Minus V-Pol dow payment. See Attachment 13 fo
	Amount:	Attachment 1310 quote. \$88,782.75
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.	
UHF - Lower Power Side Mount, One station antenna 200-500 kW, elliptically or circularly polarized	Information not provided.	

Sweep test of existing antenna		
antenna	Component Description:	Interim and Aux
		antenna and line
		were measured in
		the same trip so
		measurement cost
		was divided
		between cost
		categories. (Note:
		The company
		name includes an
		ampersand that
		Form won't
		accept.)
	Amount:	\$3,275.00
		<i>40,2000</i>

#### **Transmission Line**

#### Cost Information

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 Transmission Line	\$20,200.00	\$19,700.00		\$0.00	
Rigid Transmission Line - copper, 6 1/8"	\$20,200.00	\$19,700.00	N/A	N/A	N/A
Primary Transmission Line	\$534,380.00	\$338,085.00		\$152,138.25	
Rigid Transmission Line - copper, 8 3 /16"	\$534,380.00	\$338,085.00	See Attachment 13, Line Item 4 and Attachment 39.	\$152,138.25	N/A
Auxiliary Transmission Line	\$347,000.00	\$338,000.00		\$0.00	
Rigid Transmission Line - copper, 8 3 /16"	\$347,000.00	\$338,000.00	Widelity Cost Catalog Price	N/A	N/A
Sub-total	\$901,580.00	\$695,785.00	N/A	\$152,138.25	N/A
Total for all systems	\$5,492,989.11	\$4,685,853.83	N/A	\$1,395,139.79	N/A

Actual Information	
Description	File Name

Rigid Transmission Line - copper, 6 1/8"	Information not provided.	
Rigid Transmission Line - copper, 8 3/16"	Component Description:	Primary Transmission Line. See Attachments 13 and 39 for quotes.
	Amount:	\$152,138.25
Rigid Transmission Line - copper, 8 3/16"	Information not provided.	

## **Tower Equipment and Rigging Costs**

#### Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower GTOWER	\$667,200.00	\$649,500.00		\$0.00	
Tall Tower (greater than 500')	\$210,500.00	\$205,000.00	Cost Catalog Pricing.	N/A	N/A
Major tower reinforcement /modifications	\$421,000.00	\$409,500.00	Cost Catalog Pricing.	N/A	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$25,600.00	Cost Catalog Pricing.	N/A	N/A
Tower Permit Packages	\$9,400.00	\$9,400.00	Generate construction drawings of tower, ground, and building for local permits. See Attachments 5 and 6.	N/A	N/A
Sub-total	\$667,200.00	\$649,500.00	N/A	\$0.00	N/A
Total for all systems	\$5,492,989.11	\$4,685,853.83	N/A	\$1,395,139.79	N/A

Information not provided.

## **Outside Professional Services**

#### Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cos Justificatic
Outside Professional Services	\$98,365.00	\$59,879.50		\$6,850.00	
RF Exposure Measurements	\$21,050.00	\$3,750.00	RF Exposure measurements to demonstrate RF fields are less than FCC limits. See Attachment 5.	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$167.00	See Attachment 5.	N/A	N/A
Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	\$10,520.00	\$1,250.00	See Attachment 5.	N/A	N/A
NEPA Section 106 environmental review, if needed	\$6,310.00	\$1,350.00	See Attachment 5.	N/A	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	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
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,050.00	Cost Catalog Pricing.	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,312.50	Additional engineering work and Construction Permit modification was required when initial site became unavailable. See Exhibits 20, 27, and 29.	\$3,312.50	Unexpecter loss of main and interim site See Statement 2.
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$5,000.00	See Attachment 5.	\$3,537.50	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/A

Project management of the transition	\$39,500.00	\$37,500.00	Company lacks sufficient internal resources. See also Attachment 5.	N/A	N/A
Sub-total	\$98,365.00	\$59,879.50	N/A	\$6,850.00	N/A
Total for all systems	\$5,492,989.11	\$4,685,853.83	N/A	\$1,395,139.79	N/A

Actual Information Description	File Name
RF Exposure Measurements	Information not provided.
ASR modification (prepare FCC Form 854)	Information not provided.
Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	Information not provided.
NEPA Section 106 environmental review, if needed	Information not provided.
Prepare request for Special Temporary Authorization	Information not provided.
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	Information not provided.

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description:	Prepare CP Engineering for
	Amount:	Riverview-1 site. \$1,387.50
	Component Description:	Preliminary Engineering for CP at Riverview-2
	Amount:	site. \$1,125.00
	Component Description:	Complete Engineering for CP Mod back to
	Amount:	Riverview-2 site. \$800.00
Perform engineering study for new channel assignment and antenna development	Component Description:	Evaluate viability
	Amount:	of existing Riverview-2 Site. \$1,062.50
	Component Description:	Preliminary evaluation of WEDU site
	Amount:	suitability. \$725.00
	Component Description:	Study suitability of WEDU antenna as primary. See
	Amount:	Statement 2. \$812.50
	Component Description:	Evaluate ATC Riverview-1
	Amount:	antenna and site. \$937.50

Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
Project management of the transition	Information not provided.

## **Other Expenses**

## Cost Information

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$74,480.00	\$68,165.00		\$0.00	
Equipment Delivery and Handling Charges	\$22,000.00	\$22,000.00	See Attachments 2A and Exhibit 21 (\$11,000 each).	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$30,000.00	\$30,000.00	Assorted disposal cost for equipment and other waste. For example, see Attachments 10 and 11.	N/A	N/A
Non-zoning permits	\$4,700.00	\$4,700.00	N/A	N/A	N/A
Local Zoning	\$4,700.00	\$4,700.00	N/A	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$5,250.00	See Attachment 12.	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A

MVPD Notification of Channel Change	\$1,000.00	\$1,000.00	N/A	N/A	N/A
Sub-total	\$74,480.00	\$68,165.00	N/A	\$0.00	N/A
Total for all systems	\$5,492,989.11	\$4,685,853.83	N/A	\$1,395,139.79	N/A

Information not provided.

Cost	Grand Total				
Information		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$5,492,989.11	\$4,685,853.83	\$1,395,139.79	

Reimbursem	enrestanus	Response
	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	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.	
		<ol> <li>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>The above-named</li> </ol>	
		entity acknowledges that all certifications and attached documentation are considered material representations.	
		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.	

- 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).
- 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.

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 IMPRISIONMENT (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> <li>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> </ol>	
		2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.	
		3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	

- 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).
- 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.

	The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 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.	
an au name	are, under penalty of perjury, that I am thorized representative of the above- d applicant for the Authorization(s) ied above.	Andrew J Siegel Assistant Secretary
		04/01/2019

## Attachments