Approved by OMB (Office of Management and Budget) 3060-1178

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: **25453** | Service: **DTV** | Call Sign: **KYW-TV** | Channel: **30 (UHF)**

File Number: **0000027398**

FRN: **0003482189** | Date Submitted: **01/10/2020**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
CBS BROADCASTING INC. Doing Business As: CBS BROADCASTING INC.	Daniel G. Ryson 1725 DESALES ST NW SUITE 501 WASHINGTON, DC 20036 United States	+1 (202) 457-4074	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
Daniel G Ryson *Associate Director of Spectrum Management* *CBS*	Daniel G. Ryson 1725 DeSales Street 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	New side-mount antenna for interim use will be installed on Tower ASR 1023152 while new bottom mount stacked UHF 30 antenna is mounted on Tower ASR 1035474.

Transmitters

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

Primary Transmitter

Existing Transmitter Information

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 and Type	Manufacturer	
	Model	Sigma CD200P2
	Year	1999
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	50 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	ULXTED-144
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	94.4 kW
	Justification for New Transmitter	See Attachment 25 - Attachment 25 - Primary Transmitter and Antenna Overview and Cost Considerations Statement. Comparable transmitter is a ULXTED-120.

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	300 kVA
	Rigid Conduit and Wiring	Yes
	Size	4 inches

	Length	100.0 feet
	Other Electrical Service	Yes
	Description	100 feet of 2-inch conduit and 100 feet of 3-inch conduit.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	25 tons
	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

Primary Transmitter

Other Transmitter Cost Not Listed

Name	Description
Surge Suppressor	Parallel surge suppressor required for proper operation of transmitter. See Attachment 2A, Item D2.

Interim Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-40
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	25.3 kW
	Justification for New Transmitter	Transmitter required at interim site while main site antenna and transmission line are being replaced.

Interim 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	150 kVA
	Rigid Conduit and Wiring	Yes
	Size	4 inches
	Length	50.0 feet

	Other Electrical Service	Yes
	Description	100 feet each of 2-inch and 3-inch conduit.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	25 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	0.0 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
Inside RF System	Is an additional interior RF system required to support this interim transmitter?	Yes

Interim Transmitter

Other Transmitter Cost Not Listed

Name	Description
Surge Suppressor	Parallel surge suppressor. Required for proper operation of interim transmitter. See Attachment 4, Item D1.

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	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?	Yes
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Bottom
	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)	790.0 kW

Manufacturer	
Model	TFU-30GBH-R
Year	1999

Primary Antenna

New Antenna Costs

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?	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?	Yes
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Bottom
	Polarization	Elliptical
	Type	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)	960.0 kW
	Manufacturer	
	Model	TFU-28JBH/VP-R O8
	Year	2019

	Justification for New Antenna	Existing antenna cannot be retuned. Quote revised to improve pattern after accommodating top-mount WPSG(TV) Philadelphia. See Attachment 25.

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
	Type	
	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?	
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

Primary Antenna

Other Antenna Cost Not Listed

Information not provided.

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	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)	179.5 kW
	Manufacturer	
	Model	TFU-16WB /VP C160
	Year	2018

	Justification for New Antenna	Main site unavailable during construction of post-transition facility.

Interim Antenna

Other Antenna Costs

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?	Yes
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim Antenna

Other Antenna Cost Not Listed

Information not provided.

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
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 Line Manufacturer and Type	Manufacturer	
	Type	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	1550 feet per run

Primary Transmission Line

New Transmission 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
	Type	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1350 feet per run
	Justification for New Transmission Line	Existing segments are an incorrect match for new channel. (Line Length reduced from 1,550 to 1,350 feet 19 Nov 2019.) See Attachment 5A.

Primary Transmission Line	Other Transmission Line Expenses Not Listed
	Information not provided.

Interim Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	Rigid
	Diameter	6 1/8 inches
	Segment Length	Broadband
	Other Segment Length	
	Number of parallel runs	1
	Length	800 feet per run
	Justification for New Transmission Line	Interim site requires transmitter to be connected to the 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
	Ownership	Leased
	Is this tower consider Complex?	No
	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?	No
	Is tower compliant with Rev G?	Unknown
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1023152
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	40° 02' 39.0" N-
	Longitude (NAD83)	075° 14' 25.0" W-
	Overall Structure Height	1116.13 feet
	Support Structure Height	1112.85 feet
	Ground Elevation Above Mean Sea Level (AMSL)	252.29 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	ABC INC DBA = WPVI-TV
Date Constructed	01/01/1957

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
8616	WPVI-TV	DTV
12499	WPSG	DTV

Auxiliary Tower

Tower Modification Costs

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

Auxiliary Tower

Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	N/A

Helicopter Services Required	Are helicopter services required?	No

Auxiliary Tower

Other Tower Expenses Not Listed

Information not provided.

Primary Tower

Existing Tower

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	Is this tower consider Complex?	
	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?	No
	Is tower compliant with Rev G?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1035474
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	40° 02' 33.0" N-
	Longitude (NAD83)	075° 14' 32.0" W-
	Overall Structure Height	1276.23 feet
	Support Structure Height	1272.95 feet
	Ground Elevation Above Mean Sea Level (AMSL)	242.78 feet
	Structure Type	TOWER - Free Standing or Guyed Structure

Tower Owner	ABC, INC. DBA = WPVI-TV
Date Constructed	10/23/1998

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
12499	WPSG	DTV
8616	WPVI-TV	DTV

Primary Tower

Tower Modification Costs

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:	No reinforcements needed

Primary Tower

Tower Rigging Costs

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

	Other Tower Expenses Not Listed
Primary Tower	Information not provided.

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	250
	Explanation	Company lacks 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	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	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	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	Yes
	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	No
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Services not provided.

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	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
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

Other Expenses Not Listed

Name	Description
FCC Filing Fee - STL	FCC Filing Fee - STL
Interim Bldg. Electrical Contractor	Interim Bldg. Electrical Contractor
Interim Bldg. Fire Detection	Interim Building Fire Detection and Suppression System.
Interim Bldg. GC and Mech. Contractor	Interim Bldg. GC and Mech. Contractor
STL to Interim Site	STL Hardware to Interim Site

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-40	**$1,250,510.82**	**$1,052,344.34**		**$291,302.29**	
Surge Suppressor	***$1,510.82***	$1,510.82	Parallel surge suppressor. Required for proper operation of interim transmitter. See Attachment 4, Item D1.	N/A	N/A
UHF inside RF system including switching	$147,500.00	$140,000.00	N/A	N/A	N/A
Other -- Building Addition Size: 0.0	***$25,000.00***	$25,000.00	Leasehold improvements to building required to accommodate new transmitter equipment.	N/A	N/A
25 Ton system	$91,500.00	$87,000.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	$947,000.00	$780,763.52	See Attachment 4, Items A, B, and E.	$291,302.29	N/A

Transformer 3 phase /480v - 150 KVA	$25,550.00	$5,870.00	Required for proper operation of the interim transmitter. See Attachment 4, Item D1.	N/A	N/A
4" Rigid Conduit and Wiring (Cost per foot)	$5,050.00	$4,800.00	N/A	N/A	N/A
Other Electrical Service: 100 feet each of 2-inch and 3-inch conduit.	***$7,400.00***	$7,400.00	100 feet each of two-inch and three-inch conduit. Widelity Cost Catalog pricing used.	N/A	N/A
Primary Transmitter ULXTED-144	**$4,566,821.64**	**$2,042,758.82**		**$1,329,469.43**	
Other Electrical Service: 100 feet of 2-inch conduit and 100 feet of 3-inch conduit.	***$7,400.00***	$7,400.00	100 feet each of two-inch and three-inch conduit. Widelity Cost Catalog pricing used.	N/A	N/A
4" Rigid Conduit and Wiring (Cost per foot)	$10,100.00	$9,600.00	N/A	N/A	N/A
Transformer 3 phase /480v - 300 KVA	$36,800.00	$14,993.60	Required for proper operation of repack transmitter. See Attachment 2A, Item D1.	$7,944.40	N/A

UHF - Liquid Cooled Solid State Transmitter 86.8 . 106 kW	$2,630,000.00	$1,277,939.63	Cost based on ULXTED-100 Estimate (Attachment 2B) line Items A, B, C, and E minus already-reimbursed $642,803.95 from GatesAir Invoice GO10004708-DP in another now-locked cost category. See also Attachment 36.	$677,120.06	N/A
Surge Suppressor	***$3,021.64***	$3,021.64	Parallel surge suppressor is required for proper operation of transmitter. See Attachment 2B, Item D2.	$1,601.02	N/A
25 Ton system	$91,500.00	$87,000.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	$1,788,000.00	$642,803.95	***System Notice: Estimate adjusted and locked because line has been superseded. ***This cost is for an IOT transmitter capable of meeting our HPol-only CCRPN ERP.	$642,803.95	N/A
Sub-total	$5,817,332.46	$3,095,103.16	N/A	$1,620,771.72	N/A

Total for all systems	$8,988,365.46	$5,676,095.38	N/A	$2,797,241.91	N/A

Components

Actual Information Description	File Name
Surge Suppressor	Information not provided.
UHF inside RF system including switching	Information not provided.
Other -- Building Addition Size: 0.0	Information not provided.
25 Ton system	Information not provided.
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	**Component Description:** Invoice is for 1/3 down payment for interim transmitter. **Amount:** $291,302.29
Transformer 3 phase/480v - 150 KVA	Information not provided.
4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
Other Electrical Service: 100 feet each of 2-inch and 3-inch conduit.	Information not provided.
Other Electrical Service: 100 feet of 2-inch conduit and 100 feet of 3-inch conduit.	Information not provided.
4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.

Transformer 3 phase/480v - 300 KVA	**Component Description:** **Amount:**	Invoice is for primary transmitter progress payment. The amount shown here is based on the ratio of unreimbursed costs times non-upgraded invoice amount. See Attachment 36A. $7,944.40
UHF - Liquid Cooled Solid State Transmitter 86.8 . 106 kW	**Component Description:** **Amount:**	"Comparable" ULXTED-100 transmitter progress payment based on ratio of unreimbursed cost times non-upgraded invoice amount. See Attachment 36A. $677,120.06
Surge Suppressor	**Component Description:** **Amount:**	This invoice is the primary transmitter progress payment. The amount shown here is based on the ratio of unreimbursed costs times non-upgraded invoice amount. See Attachment 36A. $1,601.02
25 Ton system	Information not provided.	

UHF - Liquid Cooled Solid State Transmitter 52 - 61 kW	**Component Description:**	CBS requests to have this cost rejected since it has been moved to the revised transmitter category.
	Amount:	N/A
	Component Description:	Invoice is for 1/3 down payment for main transmitter.
	Amount:	$642,803.95

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
Interim Antenna TFU-16WB /VP C160	**$138,240.00**	**$135,325.00**		**$0.00**	
Pattern scatter analysis for side mount high /med power antennas (if not included in antenna base cost)	$5,260.00	$5,000.00	N/A	N/A	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$22,000.00	N/A	N/A	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	N/A	N/A	N/A

UHF - Lower Power Side Mount, One Station antenna . medium power (50-200 kW), elliptically or circularly polarized	$103,100.00	$101,925.00	Please see Attachment 6, Line 1. The estimate includes a broadband elbow complex (Attachment 6, Line 4) and excludes vertical polarization cost.	N/A	N/A
Primary Antenna TFU-28JBH /VP-R O8	**$311,480.00**	**$413,253.00**		**$371,927.70**	
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	$15,250.00	$13,583.00	See Attachment 5A, Line 2.	$12,224.70	N/A

UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	$289,500.00	$393,270.00	Antenna requires additional structural capability to support other antenna stacked above and pattern optimization to compensate for nearby transmission line. See Attachment 5A, Line 1 (minus $37,200 for upgraded V-Pol cost) and Attachment 25.	$353,943.00	N/A
Sweep test of existing antenna	$6,730.00	$6,400.00	Please see Attachment 5A, Line 22.	$5,760.00	N/A
Sub-total	$449,720.00	$548,578.00	N/A	$371,927.70	N/A
Total for all systems	$8,988,365.46	$5,676,095.38	N/A	$2,797,241.91	N/A

Components

Actual Information Description	File Name
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.

Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	
Sweep test of existing antenna	Information not provided.	
UHF - Lower Power Side Mount, One Station antenna . medium power (50-200 kW), elliptically or circularly polarized	Information not provided.	
Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed)	**Component Description:** **Amount:** **Component Description:** **Amount:**	Elbow complex 45% down payment. See Attachment 5A for quotation and Attachment 25 for further info. $6,112.35 Elbow complex 45% progress payment. See Attachment 5A for quotation and Attachment 25 for further info. $6,112.35

UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	**Component Description:**	Antenna minus V-Pol cost 45% down payment. See Attachment 5A for quotation and Attachment 25 for further info.
	Amount:	$176,971.50
	Component Description:	Antenna minus V-Pol cost 45% progress payment. See Attachment 5A for quotation and Attachment 25 for further info.
	Amount:	$176,971.50
Sweep test of existing antenna	**Component Description:**	Sweep testing 45% down payment. See Attachment 5A for quotation and Attachment 25 for further info.
	Amount:	$2,880.00
	Component Description:	Sweep testing 45% progress payment. See Attachment 5A for quotation and Attachment 25 for further info.
	Amount:	$2,880.00

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
Interim Transmission Line	**$185,600.00**	**$153,130.60**		**$0.00**	
Rigid Transmission Line - copper, 6 1/8" broadband	$185,600.00	$153,130.60	See Attachment 6, Line 2.	N/A	N/A
Primary Transmission Line	**$468,450.00**	**$323,018.25**		**$290,716.42**	
Rigid Transmission Line - copper, 8 3/16"	$468,450.00	$323,018.25	1,350 feet of 8 3/16-inch 75 Ohm line. Please see Attachment 5A line 3 for quote. Length and cost reduced 19 Nov 2019.	$290,716.42	N/A
Sub-total	$654,050.00	$476,148.85	N/A	$290,716.42	N/A
Total for all systems	$8,988,365.46	$5,676,095.38	N/A	$2,797,241.91	N/A

Components

Actual Information Description	File Name
Rigid Transmission Line - copper, 6 1/8" broadband	Information not provided.

Rigid Transmission Line - copper, 8 3/16"	**Component Description:**	Transmission line 45% down payment. See Attachment 5A for quotation and Attachment 25 for further info.
	Amount:	$145,358.21
	Component Description:	Sweep testing 45% progress payment. See Attachment 5A for quotation and Attachment 25 for further info.
	Amount:	$145,358.21

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 Cos Justificatic
Auxiliary Tower TOWER	**$657,800.00**	**$391,962.37**		**$158,412.37**	
Major tower reinforcement /modifications	$421,000.00	$200,000.00	50% of Widelity Cost Catalog pricing. Half of cost is shared with WPSG (TV).	N/A	N/A
Tall Tower (greater than 500')	$210,500.00	$179,462.37	50% of Antenna and Line Rigging quote (Attachment 28) plus 50% of Tower Ice Bridge quote (Attachment 31) Half of cost is shared with WPSG (TV).	$154,462.37	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	$26,300.00	$12,500.00	50% of Widelity Cost Catalog pricing. Half of cost is shared with WPSG (TV).	$3,950.00	N/A
Primary Tower TOWER	**$447,300.00**	**$212,500.00**		**$8,750.00**	

Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	$26,300.00	$12,500.00	50% of Widelity Cost Catalog pricing. Half of cost is shared with WPSG (TV) Facility ID 12499. This cost increased because actual tower documentation was found to be less accurate than initially thought.	$8,750.00	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	$421,000.00	$200,000.00	50% of Widelity Cost Catalog pricing. Half of cost is shared with WPSG (TV) Facility ID 12499. Tower does not have a candelabra but is complex due to stacked antennas.	N/A	N/A
Sub-total	$1,105,100.00	$604,462.37	N/A	$167,162.37	N/A
Total for all systems	$8,988,365.46	$5,676,095.38	N/A	$2,797,241.91	N/A

Components

Actual Information Description	File Name
Major tower reinforcement /modifications	Information not provided.

Tall Tower (greater than 500')	**Component Description:**	Initial payment to Install ice bridge. Cost is shared 50 /50 (Fractional Cents Rounded Down) with WPSG (TV).
	Amount:	$26,842.37
	Component Description:	Final costs to Install antenna, line, and assist with tuning. Cost is shared 50/50 with WPSG(TV).
	Amount:	$52,275.00
	Component Description:	Down payment costs to Install antenna, line, and assist with tuning. Cost is shared 50 /50 with WPSG (TV).
	Amount:	$52,275.00
	Component Description:	Progress payment to Install ice bridge. Cost is shared 50 /50 with WPSG (TV).
	Amount:	$23,070.00

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	**Component Description:** <

Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Information not provided.

Cost Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	**$60,485.00**	**$57,000.00**		**$2,337.50**	
Project management of the transition	$39,500.00	$37,500.00	Company lacks sufficient internal resources.	N/A	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
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	$937.50	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	$3,155.00	$3,000.00	N/A	$1,400.00	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 request for Special Temporary Authorization	$2,050.00	$1,500.00	N/A	N/A	N/A
Attorney Fees - Negotiation of lease and other matters for shared locations	$4,210.00	$4,000.00	N/A	N/A	N/A
Sub-total	$60,485.00	$57,000.00	N/A	$2,337.50	N/A
Total for all systems	$8,988,365.46	$5,676,095.38	N/A	$2,797,241.91	N/A

Components

Actual Information Description	File Name
Project management of the transition	Information not provided.
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
Perform engineering study for new channel assignment and antenna development	**Component Description:** Preliminary interference study. **Amount:** $937.50

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	Prepare FCC Form 2100 CP Application, Engineering Section. $1,400.00
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare request for Special Temporary Authorization	Information not provided.	
Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.	

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	**$901,678.00**	**$894,803.00**		**$344,326.20**	
STL to Interim Site	***$0.00***	$0.00	STL equipment, including transmitters, receivers, antennas, waveguide, and frequency coordination. See Attachments 29 and 31. We were instructed by the Repack Administrator to move 100% of this cost to WPSG so $0.00 is being requested here.	$0.00	N/A

Interim Bldg. GC and Mech. Contractor	***$324,617.50***	$324,617.50	Interim Building General Contractor and Mechanical Subcontractor. See Attachment 14. Site is to be used by KYW-TV and WPSG so only half of the quoted cost is shown here.	$129,847.00	N/A
Interim Bldg. Fire Detection	***$75,240.00***	$75,240.00	Interim Building Fire Detection and Suppression System. See Attachment 14. Site is to be used by KYW-TV and WPSG so only half of the quoted cost is shown here.	$30,096.00	N/A
Interim Bldg. Electrical Contractor	***$449,270.50***	$449,270.50	Interim Building Electrical Contractor. See Attachment 14. Site is to be used by KYW-TV and WPSG so only half of the quoted cost is shown here.	$179,708.20	N/A

FCC Filing Fee - STL	***$0.00***	$0.00	See FCC Wireless Bureau Fee Filing Guide (Attachment 16 page 19). We were instructed by the Repack Administrator to move 100% of this cost to repack station WPSG so $0.00 is being requested for KYW-TV.	$0.00	N/A
MVPD Notification of Channel Change	***$1,000.00***	$1,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	***$15,000.00***	$15,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	***$20,000.00***	$20,000.00	N/A	N/A	N/A
Local Zoning	***$5,000.00***	$5,000.00	N/A	N/A	N/A
DTV Medical Facility Notification	$11,550.00	$4,675.00	See Attachment 26	$4,675.00	N/A
Sub-total	$901,678.00	$894,803.00	N/A	$344,326.20	N/A
Total for all systems	$8,988,365.46	$5,676,095.38	N/A	$2,797,241.91	N/A

Components

Actual Information Description	File Name	
STL to Interim Site	**Component Description:** **Amount:**	Invoice is for frequency coordination of studio transmitter link. We were instructed by the Repack Administrator to move 100% of this cost to repack station WPSG so $0.00 is being requested for KYW-TV. N/A
Interim Bldg. GC and Mech. Contractor	**Component Description:** **Amount:**	Invoice is down payment for building General Contractor, Mech subcontractor, Elec Contractor, and Fire Detection and Suppression. This cost is GC and Mech Contractor. Site used by KYW-TV and WPSG so 50% of the quoted cost is shown here. $129,847.00

Interim Bldg. Fire Detection	**Component Description:**	Invoice is down payment for building General Contractor, Mech subcontractor, Elec Contractor, and Fire Detection and Suppression. This cost is Fire Detection and Suppression. Site used by KYW-TV and WPSG so 50% of the quoted cost is shown here.
	Amount:	$30,096.00
Interim Bldg. Electrical Contractor	**Component Description:**	Invoice is down payment for building General Contractor, Mech subcontractor, Elec Contractor, and Fire Detection and Suppression. This cost is Elec. Contractor. Site used by KYW-TV and WPSG so 50% of the quoted cost is shown here.
	Amount:	$179,708.20

FCC Filing Fee - STL	**Component Description:** **Amount:**	Invoice is for FCC License Application for studio transmitter link. We were instructed by the Repack Administrator to move 100% of this cost to repack station WPSG so $0.00 is being requested for KYW-TV. N/A
MVPD Notification of Channel Change	Information not provided.	
Equipment Delivery and Handling Charges	Information not provided.	
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
Local Zoning	Information not provided.	
DTV Medical Facility Notification	**Component Description:** **Amount:**	Required notification to nearby healthcare facilities. See Attachment 27. $4,675.00

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$8,988,365.46	$5,676,095.38	$2,797,241.91

Reimbursement Status

Question	Response
The facility has ceased operating on its pre-auction channel.	Yes
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.	
	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. 2. The above-named 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).
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.

	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.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**Andrew J Siegel** *Assistant Secretary* 01/10/2020

Attachments