



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **12499** | Service: **DTV** | Call **WPSG** | Channel: **33 (UHF)** |
ID: | Sign:
File **0000027372**
Number:
FRN: **0003742608** | Date **06/06**
Submitted: **/2019**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
PHILADELPHIA TELEVISION STATION WPSG, 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 <i>Associate Director of Spectrum Management</i> <i>CBS</i>	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 top mount stacked UHF ch 33 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-80
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	50.6 kW
	Justification for New Transmitter	Manufacturer cannot retune any IOT transmitters (Attachment 1) and the proposed solid-state transmitter (Attachment 2) is less expensive than a new IOT transmitter (Attachment 3). See Statement and Attachment 7 for additional justification.

**Primary
Transmitter**

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	Yes
	Size	4 inches
	Length	75.0 feet
	Other Electrical Service	Yes
	Description	100 feet each of two-inch and three-inch conduit.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	5 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold 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
Shipping	Transmitter Shipping. See Attachment 18, Page 1.
Electrical Accessories	150 kVA Transformer and Parallel Surge Suppressor. Required for reliable operation of primary transmitter. See Attachment 18, Item D.
RF Accessories, Switching	Various RF Accessories and Inside RF Switching required by repack transmitter. See Attachment 18, Item C.

**Interim
Transmitter**

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	Maxiva ULXTE-40
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	25 kW
	Justification for New Transmitter	Interim transmitter for UHF 32 use while main transmitter, antenna, and T/L are replaced for operation on UHF 33.

**Interim
Transmitter**

Other Transmitter Costs

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

	Length	50.0 feet
	Other Electrical Service	Yes
	Description	One hundred feet each of two-inch and three-inch conduit.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	5 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold 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 Transmitter

Other Transmitter Cost Not Listed

Name	Description
RF Accessories	Various RF Accessories required by repack transmitter. See Attachment 4, Item C.
Shipping	Transmitter Shipping. See Attachment 4, Page 1.

Electrical Accessories	150 kVA Transformer and Parallel Surge Suppressor. Required for reliable operation of primary transmitter. See Attachment 4, Item D.
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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?	Yes
	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)	800.0 kW

Manufacturer	
Model	TFU- 26GTH-R- C190SP
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?	Yes
	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	Top
	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)	800.0 kW
	Manufacturer	

Model	TFU-24ETT /VP-R 4C150
Year	2019
Justification for New Antenna	Existing antenna cannot be retuned.

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	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	6 1/8 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 transmission line and antenna?	Yes

**Primary
Antenna**

Other Antenna Cost Not Listed

Name	Description
Feed Through Components	Elbows, cut lengths and hangers required to route transmission line from antenna input through antenna below into tower. See Attachment 5.
Wedding Cake Adapter	Mechanical adapter for top mounting in a stack. See Attachment 5.

**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)	190.6 kW
	Manufacturer	
	Model	TFU-16WB /VP C160
	Year	2018

	Justification for New Antenna	Off site use due to construction of post transition facility.
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**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	6 1/8 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1241 feet per run

Primary **New Transmission Line**
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	6 1/8 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1386 feet per run
	Justification for New Transmission Line	Existing segments incorrect match for new channel.

Primary **Other Transmission Line Expenses Not Listed**
Transmission Line

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	New interim site requires new T/L

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	Post-Transition Primary
	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?	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
8616	WPVI-TV	DTV
25453	KYW-TV	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:	No reinforcements needed

Auxiliary Tower

Tower Rigging Costs

Section	Question	Response
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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.

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?	
	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
25453	KYW-TV	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	Other
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?	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?	Yes
	Is tower compliant with Rev G?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1231524
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	40° 02' 30.1" N-
	Longitude (NAD83)	075° 14' 10.1" W-
	Overall Structure Height	1254.91 feet
	Support Structure Height	1124.00 feet
	Ground Elevation Above Mean Sea Level (AMSL)	292.98 feet
	Structure Type	GTOWER - Guyed Structure Used for Communication Purposes

	Tower Owner	Global Tower, LLC. through American Towers, LLC
	Date Constructed	11/02/2011

**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
51984	WPPX-TV	DTV
60560	WUVP-DT	DTV
9622	WOGL	FM
74213	WXTU	FM
12211	WPPZ-FM	FM
63153	WCAU	DTV
65190	WRTI	FM
28628	WIP-FM	FM
1283	WDPN-TV	DTV
51434	WTDY-FM	FM
28480	WPPT	DTV
7623	WGTW-TV	DTV
30572	WPHI-FM	FM

**Primary
Tower**

Tower Modification Costs

Section	Question	Response
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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	Candelabra
Helicopter Services Required	Are helicopter services required?	No

Primary Tower

Other Tower Expenses Not Listed

Name	Description
Structural Engineering	Rigorous Structural analysis to access the structural capacity and modifications needed to accommodate the repacked equipment. See Attachment 9 Line 3-A-1.
Tower Project Management	Project management fee from tower owner. Scheduling and management of the timelines and schedules occurring during the repack. See Attachment 9 Line 1-A-1.
Site Coordination Meeting	Site coordination meetings with tower owner, other broadcasters, contractors, and vendors involved with the site deliveries and construction. See Attachment 9 Line 1-B-1.

**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 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	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	No
	For Auxiliary Facility	N/A
	For Main Facility	N/A
	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	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	Other Expenses Not Listed Information not provided.
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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 Maxiva ULXTE-40	\$1,220,343.36	\$1,045,356.88		\$291,302.29	
Electrical Accessories	<i>\$7,380.82</i>	\$7,380.82	Transmitter Electrical Accessories. Includes Step-Down Transformer and Surge Suppressor. See Attachment 4, Item D.	N/A	N/A
Shipping	<i>\$7,700.00</i>	\$7,700.00	Transmitter Shipping. Please see Attachment 4, Page 1.	N/A	N/A
RF Accessories	<i>\$78,062.54</i>	\$78,062.54	RF Accessories Required for Transmitter. Please See Attachment 4, Item C.	N/A	N/A
UHF inside RF system including switching	\$147,500.00	\$140,000.00	N/A	N/A	N/A
5 Ton system	\$20,250.00	\$19,250.00	Widely Cost Catalog estimate	N/A	N/A

Other Electrical Service: One hundred feet each of two-inch and three-inch conduit.	\$7,400.00	\$7,400.00	Required to power transmitter equipment.	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	\$947,000.00	\$780,763.52	See Attachment 2, Items A, B, and E.	\$291,302.29	N/A
4" Rigid Conduit and Wiring (Cost per foot)	\$5,050.00	\$4,800.00	N/A	N/A	N/A
Primary Transmitter ULXTED-80	\$1,660,840.43	\$1,659,465.43		\$502,839.60	
RF Accessories, Switching	\$204,253.19	\$204,253.19	RF Accessories and Switchless Combiner. Replaces Similar Existing Combiner. See Attachment 18 Item C.	N/A	N/A
Electrical Accessories	\$15,592.24	\$15,592.24	Transmitter Electrical Accessories. Includes Step-Down Transformer and Parallel Surge Suppressor. See Attachment 18 - Item D.	N/A	N/A

Shipping	\$17,300.00	\$17,300.00	Transmitter Shipping from Factory. See Attachment 18, Page 1.	N/A	N/A
5 Ton system	\$20,250.00	\$19,250.00	Widely Cost Catalog estimate	N/A	N/A
Other Electrical Service: 100 feet each of two-inch and three-inch conduit.	\$7,400.00	\$7,400.00	100 feet each of two-inch and three-inch conduit. Widely Cost Catalog pricing used.	N/A	N/A
4" Rigid Conduit and Wiring (Cost per foot)	\$7,575.00	\$7,200.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 50.6 kW	\$1,388,470.00	\$1,388,470.00	This cost is for an IOT transmitter capable of meeting the HPol-only ERP. See Engineering Statement, Attachment 3, and Attachment 7.	\$502,839.60	N/A
Sub-total	\$2,881,183.79	\$2,704,822.31	N/A	\$794,141.89	N/A
Total for all systems	\$5,515,921.79	\$4,274,428.91	N/A	\$1,035,749.89	N/A

Components

Actual Information	
Description	File Name
Electrical Accessories	Information not provided.
Shipping	Information not provided.
RF Accessories	Information not provided.
UHF inside RF system including switching	Information not provided.
5 Ton system	Information not provided.
Other Electrical Service: One hundred feet each of two-inch and three-inch conduit.	Information not provided.
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	<div> <div>Component Description:</div> <div>1/3 Down Payment, Interim Transmitter. See Quote Provided as Attachment 4.</div> <div>Amount:</div> <div>\$291,302.29</div> </div>
4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.
RF Accessories, Switching	Information not provided.
Electrical Accessories	Information not provided.
Shipping	Information not provided.
5 Ton system	Information not provided.
Other Electrical Service: 100 feet each of two-inch and three-inch conduit.	Information not provided.
4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.

UHF - Liquid Cooled Solid
State Transmitter 50.6 kW

Component Description:

Transmitter 1/3
Down Payment.
See Attachment
19 and
Attachment 18 -
Revised
Transmitter Quote
Q-74288.

Amount:

\$502,839.60

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	\$135,328.00		\$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

UHF - Lower Power Side Mount, One Station antenna . medium power (50- 200 kW), elliptically or circularly polarized	\$103,100.00	\$101,928.00	Please see Attachment 8, Line 1. The estimate includes a broadband elbow complex (Attachment 8, Line 3) and excludes vertical polarization cost.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Primary Antenna TFU-24ETT /VP-R 4C150	\$357,486.00	\$263,962.00		\$226,358.00	
Wedding Cake Adapter	\$28,050.00	\$28,050.00	Required to top mount antenna in a stack. See Attachment 23.	\$28,050.00	N/A
Feed Through Components	\$20,906.00	\$20,906.00	Required elbows, cut lengths and hangers to route line from antenna input through antenna below into tower. See Attachment 23.	N/A	N/A

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$10,298.00	See Attachment 23.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	See Attachment 5.	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$198,308.00	See Attachment 23 Line 1 (cost of vertical polarization component subtracted from cost shown.)	\$198,308.00	N/A
Sub-total	\$495,726.00	\$399,290.00	N/A	\$226,358.00	N/A
Total for all systems	\$5,515,921.79	\$4,274,428.91	N/A	\$1,035,749.89	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.
UHF - Lower Power Side Mount, One Station antenna . medium power (50-200 kW), elliptically or circularly polarized	Information not provided.

Sweep test of existing antenna	Information not provided.
Wedding Cake Adapter	<p>Component Description: Invoice includes cost of antenna, upgraded V-Pol, and Wedding Cake Adapter. Only the Wedding Cake Adapter is shown here.</p> <p>Amount: \$28,050.00</p>
Feed Through Components	Information not provided.
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.
Sweep test of existing antenna	Information not provided.
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	<p>Component Description: Invoice includes cost of antenna, upgraded V-Pol, and Wedding Cake Adapter. Only the comparable antenna cost is shown here. CBS will not seek reimbursement for the V-Pol upgrade now or in the future.</p> <p>Amount: \$198,308.00</p>

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 8, Line 2.	N/A	N/A
Primary Transmission Line	\$279,972.00	\$190,666.00		\$0.00	
Rigid Transmission Line - copper, 6 1/8"	\$279,972.00	\$190,666.00	See Attachment 5 Line 6.	N/A	N/A
Sub-total	\$465,572.00	\$343,796.60	N/A	\$0.00	N/A
Total for all systems	\$5,515,921.79	\$4,274,428.91	N/A	\$1,035,749.89	N/A

Components

Information not provided.

Cost
Information

Tower Equipment and Rigging Costs

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cos Justificatio
Auxiliary Tower TOWER	\$236,800.00	\$112,500.00		\$3,950.00	
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 Widely Cost Catalog pricing. Half of cost is shared with KYW-TV (Facility ID 25453).	\$3,950.00	N/A
Tall Tower (greater than 500')	\$210,500.00	\$100,000.00	50% of Widely Cost Catalog pricing. Half of cost is shared with KYW-TV.	N/A	N/A
Auxiliary Tower TOWER	\$868,300.00	\$412,500.00		\$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 Widely Cost Catalog pricing. Half of cost is shared with KYW-TV.	\$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 KYW-TV (Facility ID 25453). Tower is complex due to stacked antennas.	N/A	N/A
Major tower reinforcement /modifications	\$421,000.00	\$200,000.00	50% of Widelity Cost Catalog pricing. Half of cost is shared with KYW-TV.	N/A	N/A
Primary Tower	\$456,355.00	\$199,255.00		\$0.00	
GTOWER					
Site Coordination Meeting	\$1,667.00	\$1,667.00	Site coordination meetings with tower owner, other broadcasters, contractors, and vendors involved with the site deliveries and construction. See Attachment 9 Line 1-B-1.	N/A	N/A

Tower Project Management	\$2,500.00	\$2,500.00	Project management fee from tower owner. Scheduling and management of the timelines and schedules occurring during the repack. See Attachment 9 Line 1-A-1.	N/A	N/A
Structural Engineering	\$4,888.00	\$4,888.00	Rigorous Structural analysis to assess the structural capacity and modifications needed to accommodate the repacked equipment. See Attachment 9 Line 3-A-1.	N/A	N/A
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$184,000.00	Antenna to be removed is the top of a stack on a candelabra. Transmission line to be removed. See Attachment 9 Line 3-C-1.	N/A	N/A

Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$6,200.00	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 9 line 3-A-1.	\$0.00	N/A
Sub-total	\$1,561,455.00	\$724,255.00	N/A	\$12,700.00	N/A
Total for all systems	\$5,515,921.79	\$4,274,428.91	N/A	\$1,035,749.89	N/A

Components

Actual Information
Description

File Name

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	<div> <div>Component Description:</div> <div>Invoice is for a 50% Down payment. Because this expense is shared with KYW-TV Facility ID 25453, WPSG seeks reimbursement for only half of the Total Invoice Amount.</div> <div>Amount:</div> <div>\$3,950.00</div> </div> <div> <div>Component Description:</div> <div>This is a duplicated invoice, which has been superseded by Attachment 10C. Please permanently delete or reject this invoice as an administrative correction.</div> <div>Amount:</div> <div>N/A</div> </div> <div> <div>Component Description:</div> <div>Invoice is for a 50% Down payment. Because this expense is shared with KYW-TV Facility ID 25453, WPSG seeks reimbursement for only half of the Total Invoice Amount.</div> <div>Amount:</div> <div>\$3,950.00</div> </div>
Tall Tower (greater than 500')	Information not provided.
Tower mapping for an undocumented/poorly	

documented tower and preparation of documentation necessary for tower load study

Component Description:

Invoice is for a 50% Down payment. Because this expense is shared with KYW-TV Facility ID 25453, WPSG seeks reimbursement for only half of the Total Invoice Amount.

Amount:

\$4,375.00

Component Description:

Invoice is for a 50% Down payment. Because this expense is shared with KYW-TV Facility ID 25453, WPSG seeks reimbursement for only half of the Total Invoice Amount.

Amount:

\$4,375.00

Component Description:

Invoice is for a 50% Down payment. Because this expense is shared with KYW-TV Facility ID 25453, WPSG seeks reimbursement for only half of the Total Invoice Amount.

Amount:

\$4,375.00

	<p>Component Description:</p> <p>This is a duplicated invoice, which has been superseded by Attachment 12C. Please permanently delete or reject this invoice as an administrative correction.</p> <p>Amount:</p> <p>N/A</p>
	<p>Component Description:</p> <p>Invoice is for a 50% Down payment. Because this expense is shared with KYW-TV Facility ID 25453, WPSG seeks reimbursement for only half of the Total Invoice Amount.</p> <p>Amount:</p> <p>\$4,375.00</p>
	<p>Component Description:</p> <p>This is a duplicated invoice, which has been superseded by Attachment 11C. Please permanently delete or reject this invoice as an administrative correction.</p> <p>Amount:</p> <p>N/A</p>
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Information not provided.
Major tower reinforcement /modifications	Information not provided.

Site Coordination Meeting	Information not provided.
Tower Project Management	Information not provided.
Structural Engineering	Information not provided.
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	Information not provided.
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	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	\$58,905.00	\$55,500.00		\$2,550.00	
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$4,000.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$1,375.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$1,175.00	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	N/A	N/A	N/A
Sub-total	\$58,905.00	\$55,500.00	N/A	\$2,550.00	N/A
Total for all systems	\$5,515,921.79	\$4,274,428.91	N/A	\$1,035,749.89	N/A

Components

Actual Information	
Description	File Name
Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.
Prepare request for Special Temporary Authorization	Information not provided.
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	<p>Component Description: Prepare FCC Form 2100 CP Application, Engineering Section.</p> <p>Amount: \$1,375.00</p>

Perform engineering study for new channel assignment and antenna development	<div> Component Description: Further interference study</div> <div> Amount: \$562.50</div> <div> Component Description: Preliminary interference study.</div> <div> Amount: \$612.50</div>
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.
Project management of the transition	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	\$53,080.00	\$46,765.00		\$0.00	
MVPD Notification of Channel Change	<i>\$1,000.00</i>	\$1,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$15,000.00</i>	\$15,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$20,000.00</i>	\$20,000.00	N/A	N/A	N/A
Local Zoning	<i>\$5,000.00</i>	\$5,000.00	N/A	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$5,250.00	N/A	N/A	N/A
Sub-total	\$53,080.00	\$46,765.00	N/A	\$0.00	N/A

Total for all systems	\$5,515,921.79	\$4,274,428.91	N/A	\$1,035,749.89	N/A
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Components

Information not provided.

**Cost
Information**

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$5,515,921.79	\$4,274,428.91	\$1,035,749.89

Reimbursement Status

Question	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	<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"> 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.

<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>Andrew J Siegel <i>Assistant Secretary</i></p> <p>06/06/2019</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"> 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. 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) .
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>Andrew J Siegel <i>Assistant Secretary</i></p> <p>06/06/2019</p>

Attachments