



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **65130** | Service: **DTV** | Call **WQCW** | Channel: **15 (UHF)** |
ID: | Sign:
File **0000028733**
Number:
FRN: **0018223693** | Date **08/04**
Submitted: **/2020**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
GRAY TELEVISION LICENSEE, LLC Doing Business As: WQCW-TV	WQCW-TV 4370 PEACHTREE ROAD, NE ATLANTA, GA 30319 United States	+1 (404) 504-9828	allfccims@gray. tv	Limited Liability Company

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
Samuel Hariton <i>Widely</i>	Samuel Hariton 4031 University Dr Suite 100 Fairfax, VA 22030 United States	+1 (339) 222-8107	sam.hariton@widelity.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		WQCW will moving approximately a half mile to WSAZ's transmitter site and combining with WSAZ into broadband operations for both main and interim.

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	Visionary DT
	Year	2005
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	60 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-100
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	62.9 kW
	Justification for New Transmitter	Old transmitter is not retunable

**Primary
Transmitter**

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	Yes
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	Yes
	Size	4 inches
	Length	1000.0 feet
	Other Electrical Service	No
	Description	N/A

HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A tons
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
Transmitter remote control	Burk Transmitter Remote
Gen Set Pad	Pad for the generator set
Ice Bridge Building Interconnect	Ice bridge between the analog and the digital buildings
Move Gen Set	Move the generator set from the previous site
Primary Transmitter - Installation	Cost of installing new primary transmitter
Transfer Switch	Transfer Switch for the generator set
Pad for Heat Exchangers	Pad and ice shield for Heat Exchangers beside Existing PAD
Ice Bridge Gen Set	Ice bridge for the previous site's generator set

**Interim
Transmitter**

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-30
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	19.2 kW
	Justification for New Transmitter	Interim transmitter needed to continue broadcasting through transition period

**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	No
	Size	N/A
	Length	N/A
	Other Electrical Service	Yes

	Description	The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	20 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?	No

**Interim
Transmitter**

Other Transmitter Cost Not Listed

Name	Description
Ice Bridge	Ice bridge from the analog building to the tower (shared cost)

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	Leased
	Owner	Nexstar Broadcasting
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	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)	1000.0 kW

Manufacturer	
Model	TUE-05-12 /60 H-B
Year	2000

**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?	Yes
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Broadband Panel
	Number of Stations Supported	2
	Number of Panels/Bays	64
	Lower Limit	470.00 MHz
	Upper Limit	698.00 MHz
	Design power capacity in use	100.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	640.0 kW
	Manufacturer	
	Model	PEPSIL60D

	Year	2018
	Justification for New Antenna	This antenna will be shared between WQCW and WSAZ

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	2
	Frequencies of channels supported	Upper and lower frequency
	Frequency	470.0 MHz - 698.0 MHz
	Do you need a combiner output splitter /switcher for dual feed lines?	No
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Broadband
	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 transmission line and antenna?	Yes

Primary Antenna	Other Antenna Cost Not Listed Information not provided.
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**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?	Yes
	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	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	2
	Number of Panels/Bays	2
	Lower Limit	476.00 MHz
	Upper Limit	530.00 MHz
	Design power capacity in use	100.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	546.0 kW
	Manufacturer	
	Model	SBB-24C170
	Year	2018

	Justification for New Antenna	Interim antenna shared between WQCW and WSAZ to continue broadcasting through the transition period.
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Interim Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	Yes
	Type	New
	Number of channels supported	2
	Frequencies of channels supported	Upper and lower frequency
	Frequency	476.0 MHz - 530.0 MHz
	Do you need a combiner output splitter /switcher for dual feed lines?	No
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	B
	Feed Line Size	6 1/8 inches
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?	No
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	Leased
	Owner	Nexstar Broadcasting
	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	7 3/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1125 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?	Yes
	Type	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1022 feet per run
	Justification for New Transmission Line	Shared with WSAZ

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	960 feet per run
	Justification for New Transmission Line	Shared with WSAZ

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

**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?	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	Yes
	Is tower documented for structural analysis?	Yes
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	No
	ASR Number	
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	38° 30' 21.1" N-
	Longitude (NAD83)	082° 12' 32.3" W-
	Overall Structure Height	1159.11 feet
	Support Structure Height	1154.84 feet
	Ground Elevation Above Mean Sea Level (AMSL)	971.77 feet

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	Nexstar Broadcasting, Inc.
Date Constructed	07/07/2015

**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
23342	WOWK-TV	DTV

Other Types of Users

Users
Amateur Radio

Primary Tower

Tower Modification Costs

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

Primary Tower

Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	N/A

Helicopter Services Required	Are helicopter services required?	No
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**Primary
Tower**

Other Tower Expenses Not Listed

Information not provided.

**Outside
Professional**

Section	Question	Response
Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	900
	Explanation	Strategic Support.
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	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes

	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	Negotiation of Lease and other Matter for Shared Locations	Yes
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	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**

If wireless is 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	No
	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?	Yes
	Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
	Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses	Other Expenses Not Listed 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 ULXTE-30	\$859,724.05	\$738,347.59		\$609,320.08	
Ice Bridge	<i>\$6,917.55</i>	\$6,917.55	Steel Products Quote #003	N/A	N/A
Other -- HVAC Service Type: C Size:20 (Other)	<i>\$44,806.50</i>	\$44,806.50	20 ton split system shared cost with WSAZ. Please see Maynard C. Smith Construction Quote WQCW-HVACRev1	\$44,806.50	N/A
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	<i>\$124,000.00</i>	\$124,000.00	see Justifying Quote WQCW Whitt Meadows Electrical Quote # 264	\$18,577.78	N/A

UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$562,623.54	N/A	\$545,935.80	N/A
Primary Transmitter ULXTED-100	\$2,043,942.22	\$2,036,342.22		\$1,739,137.05	
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	\$22,506.90	N/A
Service entrance 3 phase/800 amp/208 volt	\$14,400.00	\$13,700.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 62.9 kW	\$173,712.07	\$173,712.07	Please see attached GatesAir Quote Q-78319, less the previously reimbursed amount of \$1,619,160.65	\$0.00	N/A
Move Gen Set	\$0.00	\$0.00	4/13/20 Category deemed non-reimbursable	N/A	N/A
Ice Bridge Building Interconnect	\$12,250.00	\$12,250.00	Maynard C Smith Construction Quote #IceBridge Rev 2; Maynard C Smith Construction Invoice 19-14	\$12,250.00	N/A

Pad for Heat Exchangers	\$74,256.50	\$74,256.50	1/2 the cost paid by WQCW. See revised quote WQCW-SOG101rev3	\$74,256.50	N/A
Transmitter remote control	\$0.00	\$0.00	4/13/20 Category deemed non-reimbursable	N/A	N/A
Gen Set Pad	\$0.00	\$0.00	4/13/20 - Category deemed non-reimbursable	\$0.00	N/A
Primary Transmitter - Installation	\$10,963.00	\$10,963.00	Please see GatesAir quote Q-85717	\$10,963.00	N/A
Transfer Switch	\$0.00	\$0.00	4/13/20 category deemed non-reimbursable	N/A	N/A
Ice Bridge Gen Set	\$0.00	\$0.00	4/13/20 Category deemed non-reimbursable	N/A	N/A
4" Rigid Conduit and Wiring (Cost per foot)	\$101,000.00	\$96,000.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 63.4 kW	\$1,619,160.65	\$1,619,160.65	***System Notice: Estimate adjusted and locked because line has been superseded. ***GatesAir quote GA-00022572	\$1,619,160.65	N/A
Sub-total	\$2,903,666.27	\$2,774,689.81	N/A	\$2,348,457.13	N/A

Total for all systems	\$6,161,178.59	\$4,867,512.67	N/A	\$3,369,102.78	N/A
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Components

Actual Information	
Description	File Name
Ice Bridge	Information not provided.
Other -- HVAC Service Type: C Size:20 (Other)	<p>Component Description: Quote 04a: WQCW Transmitter HVAC101Rev1</p> <p>Amount: \$44,806.50</p>
Other Electrical Service: The new transmitter will require reconfiguration of the electrical service on site. The electrical work cost has been estimated based on verbal guidance from local electrical contractors.	<p>Component Description: Hours labor</p> <p>Amount: \$18,577.78</p>
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	<p>Component Description: ULXTE-30 Transmitter per Quote Q-76788</p> <p>Amount: \$42,785.12</p> <p>Component Description: ULXTE-30 Transmitter</p> <p>Amount: \$104,825.72</p> <p>Component Description: Interim Transmitter</p> <p>Amount: \$398,324.96</p>

Switchgear - industrial 800 amp	Component Description: Amount:	HOURS LABOR- JOHN M.-2/1/19 \$22,506.90
Service entrance 3 phase /800 amp/208 volt	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 62.9 kW	Component Description: Amount:	Transmitter \$135,680.39
Move Gen Set	Information not provided.	
Ice Bridge Building Interconnect	Component Description: Amount:	Quote #03a WQCW Ice Bridge Rev 3 \$12,250.00
Pad for Heat Exchangers	Component Description: Amount:	Quote #02a WQCW- SOG101Rev5 \$74,256.50
Transmitter remote control	Information not provided.	
Gen Set Pad	Component Description: Amount:	Quote #5 Generator Pad - Rev 2 \$29,600.00
Primary Transmitter - Installation	Component Description: Amount:	FIELD SERVICE, TV \$10,963.00
Transfer Switch	Information not provided.	
Ice Bridge Gen Set	Information not provided.	

4" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	
UHF - Liquid Cooled Solid State Transmitter 63.4 kW	Component Description:	Category superseded, invoice moved.
	Amount:	N/A
	Component Description:	A. Transmitter
	Amount:	\$387,559.85
	Component Description:	ULXTE-100 Primary Transmitter
	Amount:	\$1,231,600.80

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 SBB-24C170	\$226,106.32	\$170,544.86		\$96,950.71	
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$11,000.00	WQCW's half of the shared antenna brackets	\$2,000.00	N/A
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$6,500.00	WQCW's half of the cost	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$50,000.00	WQCW's half of the shared combiner	\$16,324.68	N/A
Sweep test of existing antenna	\$6,730.00	\$4,718.54	Estimated Cost Justification WQCW-280-Sweep test interim antenna V0	\$4,078.54	N/A

UHF â€“ Broadband Panel, Side Mount Auxiliary /Interim, 546 horizontally polarized	\$75,635.63	\$75,635.63	THIS IS THE CORRECTED INTERIM ANTENNA CATEGORY, ESTIMATED COST PER DTVPROS QUOTE JEHQ 1487 - 50% split with WSAZ	\$51,856.80	N/A
UHF – Broadband Panel, Side Mount Auxiliary /Interim, 530 horizontally polarized	\$22,690.69	\$22,690.69	***System Notice: Estimate adjusted and locked because line has been superseded. ***WCQW's half of the cost	\$22,690.69	Please do not upload invoices here
Primary Antenna PEPSIL60D	\$877,880.00	\$371,685.09		\$268,105.65	
Sweep test of existing antenna	\$6,730.00	\$3,200.00	WQCW's share of cost, split with WSAZ	\$2,560.00	N/A
Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed)	\$18,950.00	\$9,000.00	WQCW's half of the cost	N/A	N/A
New combiner, cost per channel (without antenna)	\$84,200.00	\$104,558.09	WQCW's half of the cost of Q-76838 minus cost of retuning (section 3 of Q-76838)	\$41,271.65	N/A

UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, elliptically or circularly polarized	\$768,000.00	\$254,927.00	WQCW's half of the shared antenna with WSAZ per DTVPros Quote JEHQ 1484, WQCW's half of the shared custom index plate with WSAZ per Electronics Research, INC proposal 20181106-779	\$224,274.00	N/A
Sub-total	\$1,103,986.32	\$542,229.95	N/A	\$365,056.36	N/A
Total for all systems	\$6,161,178.59	\$4,867,512.67	N/A	\$3,369,102.78	N/A

Components

Actual Information	
Description	File Name
Side mount brackets for high power antennas (if not included in antenna base cost)	<p>Component Description: ANTENNA MOUNT</p> <p>Amount: \$2,000.00</p>
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.

New combiner, cost per channel (without antenna)	<div> Component Description: Interim Channel Combiner </div> <div> Amount: \$16,324.68 </div>
	<div> Component Description: Interim combiner (70% payment of Quote Q-77110 sec. 1 and 4) </div> <div> Amount: \$31,856.01 </div>
Sweep test of existing antenna	<div> Component Description: WQCW-280-Sweep test Interim Antenna </div> <div> Amount: \$800.00 </div>
	<div> Component Description: WQCW-Sweep Test Interim Antenna </div> <div> Amount: \$800.00 </div>
	<div> Component Description: Sweep Test </div> <div> Amount: \$960.00 </div>
	<div> Component Description: WQCW-280-Sweep test Interim Antenna </div> <div> Amount: \$1,518.54 </div>

UHF “ Broadband Panel, Side Mount Auxiliary /Interim, 546 horizontally polarized	Component Description:	UHF - Broadband Panel
	Amount:	\$14,038.99
	Component Description:	UHF - BROADBAND PANEL, SIDE MOUNT AUX /INTERIM
	Amount:	\$18,908.91
	Component Description:	Interim Antenna
	Amount:	\$18,908.90
UHF – Broadband Panel, Side Mount Auxiliary /Interim, 530 horizontally polarized	Component Description:	Interim Antenna
	Amount:	\$22,690.69
Sweep test of existing antenna	Component Description:	WQCW-210- Sweep test New Primary Antenna
	Amount:	\$800.00
	Component Description:	WQCW-210- Sweep test New Primary Antenna
	Amount:	\$800.00
	Component Description:	Sweep test Primary Antenna
	Amount:	\$960.00
Elbow complex, broadband, at antenna input, per 8 3 /16. feedline (if needed)	Information not provided.	

New combiner, cost per channel (without antenna)	<div> Component Description: Interim channel combiner </div> <div> Amount: \$41,271.65 </div>
UHF - High Power Top Mount (200-1000 kW), Two Station broadband panel antenna, elliptically or circularly polarized	<div> Component Description: UHF-HIGH POWER TOP MOUNT (200-1000KW) </div> <div> Amount: \$55,431.00 </div>
	<div> Component Description: Antenna Mount </div> <div> Amount: \$2,000.00 </div>
	<div> Component Description: UHF-HIGH POWER TOP MOUNT (200-1000KW) </div> <div> Amount: \$44,894.80 </div>
	<div> Component Description: New Primary Antenna </div> <div> Amount: \$66,517.20 </div>
	<div> Component Description: UHF High Power Top Mount </div> <div> Amount: \$55,431.00 </div>

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	\$222,720.00	\$150,921.02		\$88,303.79	
Rigid Transmission Line - copper, 6 1/8" broadband	\$222,720.00	\$150,921.02	WQCW's half of the cost	\$88,303.79	N/A
Primary Transmission Line	\$407,778.00	\$193,669.00		\$163,944.14	
Rigid Transmission Line - copper, 8 3/16" broadband	\$407,778.00	\$193,669.00	WQCW's half of the cost	\$163,944.14	N/A
Sub-total	\$630,498.00	\$344,590.02	N/A	\$252,247.93	N/A
Total for all systems	\$6,161,178.59	\$4,867,512.67	N/A	\$3,369,102.78	N/A

Components

Actual Information Description	File Name
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Rigid Transmission Line - copper, 6 1/8" broadband		
	Component Description:	Interim
	Amount:	Transmission Line \$22,638.15
	Component Description:	RIGID
	Amount:	TRANSMISSION LINE - COPPER \$18,865.12
	Component Description:	Rigid Transmission
	Amount:	Line \$27,935.40
	Component Description:	Rigid Transmission
	Amount:	Line - Copper \$18,865.12

Rigid Transmission Line - copper, 8 3/16" broadband	Component Description:	New Primary Transmission Line
	Amount:	\$44,950.93
	Component Description:	MACX875B-1
	Amount:	\$37,459.13
	Component Description:	MACX8758-1
	Amount:	\$37,459.13
	Component Description:	"8-3/16-inch, 75 ohm, 20 foot MACXLine section, flanged both ends, supplied with bellows, captivated inner connector, and flange hardware kit."
	Amount:	\$44,074.95

Cost
Information

Tower Equipment and Rigging Costs

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower GTOWER	\$644,100.00	\$633,213.74		\$193,025.11	
Tall Tower (greater than 500')	\$210,500.00	\$220,493.74	see Estimated Cost Justification WQCW-410-Tall Tower (greater than 500') v2	\$193,025.11	N/A
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	N/A	N/A
Structural engineering tower load study for well documented tower	\$12,600.00	\$12,720.00	Includes state and local taxes	N/A	N/A
Sub-total	\$644,100.00	\$633,213.74	N/A	\$193,025.11	N/A
Total for all systems	\$6,161,178.59	\$4,867,512.67	N/A	\$3,369,102.78	N/A

Components

Actual Information	
Description	File Name

Tall Tower (greater than 500')	Component Description: WQCW-410-Tall Tower (greater than 500') Amount: \$3,600.00
	Component Description: RF Technical work Amount: \$5,660.48
	Component Description: Tower Rigging Services Tall Tower (500') Amount: \$123,168.75
	Component Description: RF Technical work Amount: \$5,245.87
	Component Description: Added cost for tower crew to remove eng antenna Amount: \$14,293.76
	Component Description: Tower rigging services Amount: \$41,056.25
Major tower reinforcement /modifications	Information not provided.
Structural engineering tower load study for well documented tower	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	\$183,435.00	\$165,390.00		\$126,251.35	
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$900.00	Please see WQCW Aux Construction Permit Application Budget Justification Cover Letter	\$900.00	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	\$2,105.00	\$0.00	4/13/20 Category deemed non-reimbursable	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$0.00	4/13/20 Category deemed non-reimbursable	\$0.00	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	\$207.50	N/A

Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$740.00	Please see WQCW Attorney - Negotiate Lease and Other Matters Revision Justification Cover Letter	\$740.00	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	\$222.00	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$196.50	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	\$725.00	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	\$250.00	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,200.00	N/A

Project management of the transition	\$142,200.00	\$135,000.00	N/A	\$117,657.85	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	\$740.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$2,412.50	N/A
Sub-total	\$183,435.00	\$165,390.00	N/A	\$126,251.35	N/A
Total for all systems	\$6,161,178.59	\$4,867,512.67	N/A	\$3,369,102.78	N/A

Components

Actual Information	
Description	File Name
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	Component Description: Consulting Engineer Amount: \$900.00
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.
ASR modification (prepare FCC Form 854)	Information not provided.

Attorney Fees - Prepare and File request for Special Temporary Authorization	Component Description: Professional Services Amount: \$207.50
Attorney Fees - Negotiation of lease and other matters for shared locations	Component Description: For Professional Services Rendered Amount: \$740.00
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Component Description: Total Professional Services Amount: \$222.00
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: Complete and file initial repack CP application Amount: \$196.50
Prepare request for Special Temporary Authorization	Component Description: Develop technical parameters for interim antenna Amount: \$725.00
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Component Description: Consulting Engineer Amount: \$250.00

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application		
	Component Description:	RF Consulting Fee
	Amount:	\$1,425.00
	Component Description:	Provide FCC contour and Longley-Rice predicted coverage maps regarding pre-auction Ch-17
	Amount:	\$400.00
	Component Description:	support response to review of reimbursement form 399 provide summaries of additional antenna configurations
	Amount:	\$375.00
Project management of the transition		
	Component Description:	Project Management
	Amount:	\$3,154.30
	Component Description:	Project Management
	Amount:	\$1,477.25
	Component Description:	Project Management
	Amount:	\$2,558.55
	Component Description:	Project Management
	Amount:	\$5,551.95

Component Description:	Project Management
Amount:	\$2,414.70

Component Description:	Project Management
Amount:	\$1,558.55

Component Description:	Project Management
Amount:	\$2,653.25

Component Description:	Project Management
Amount:	\$3,539.50

Component Description:	Project Management
Amount:	\$3,627.30

Component Description:	Project Management
Amount:	\$2,649.40

Component Description:	Project Management
Amount:	\$3,017.50

Component Description:	Project Management
Amount:	\$2,005.70

Component Description:	Project Management
Amount:	\$4,398.40

Component Description:	Project Management
Amount:	\$3,996.00

Component Description:	Project Management
Amount:	\$3,132.65

Component Description:	Project Management
Amount:	\$3,057.40

Component Description:	Project Management
Amount:	\$1,609.00

Component Description:	Project Management
Amount:	\$28.20

Component Description:	Project Management
Amount:	\$1,743.75

Component Description:	Project Management
Amount:	\$1,401.45

Component Description:	Project Management
Amount:	\$1,988.85

Component Description:	Project Management
Amount:	\$3,209.65

Component Description:	Project Management
Amount:	\$2,874.40

Component Description:	This invoice has been moved to the correct category.
Amount:	N/A

Component Description:	Project Management
Amount:	\$2,035.25

Component Description:	N/A
Amount:	N/A

Component Description:	Project Management
Amount:	\$8,301.20

Component Description:	Project Management
Amount:	\$2,813.35

Component Description:	Project management
Amount:	\$2,555.15

Component Description:	Project Management
Amount:	\$2,154.80

Component Description:	Project management
Amount:	\$2,509.40

Component Description:	Project Management
Amount:	\$1,728.10

Component Description:	Project Management
Amount:	\$1,543.30

Component Description:	Project Management
Amount:	\$5,317.55

Component Description:	Project Management
Amount:	\$2,906.30

Component Description:	Project Management
Amount:	\$2,221.55

Component Description:	Project Management
Amount:	\$1,829.35

Component Description:	Project Management
Amount:	\$3,291.45

Component Description:	WQCW-510-Project Management
Amount:	\$3,900.00

Component Description:	Cost Reconciliation
Amount:	\$1,965.45

	Component Description: Amount:	Project Management \$1,985.40
	Component Description: Amount:	Project Management \$4,696.90
	Component Description: Amount:	Transition Related Project Management Costs \$1,500.00
	Component Description: Amount:	Project Management \$2,755.65
Prepare and or review reimbursement form	Information not provided.	
Address transition timing and coordination issues w/ other stations and wireless	Component Description: Amount:	Review linked set information for WQCW \$740.00

Perform engineering study for new channel assignment and antenna development		
	Component Description:	Conduct channel study to consider possible transition of WQCW
	Amount:	\$1,175.00
	Component Description:	Perform engineering study for new channel assignment
	Amount:	\$812.50
	Component Description:	Consulting Engineer
	Amount:	\$425.00

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	\$129,477.00	\$121,182.15		\$84,064.90	
MVPD Notification of Channel Change	<i>\$2,000.00</i>	\$2,000.00	Per Estimated Cost Justification WQCW-610-MVPD Notifications v0	\$2,000.00	N/A
Develop and air announcement of upcoming channel change	<i>\$10,000.00</i>	\$10,000.00	N/A	\$289.90	N/A
Equipment Storage	<i>\$10,600.00</i>	\$10,600.00	N/A	\$7,425.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$67,237.00</i>	\$67,237.00	Maynard C. Smith Construction Co. quote for WQCW Demo Safety Klean Disposal Quote for WQCW	\$65,000.00	N/A

FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$335.00	see Estimated Cost Justification WQCW-610-License to Cover FCC Filing Fees v0	\$335.00	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$400.00	Please see Estimated Cost Justification WQCW-610-STA FCC Filing Fees v0	\$400.00	N/A
Non-zoning permits	\$11,660.00	\$11,660.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	\$15,900.00	\$15,900.00	N/A	\$5,737.50	N/A
DTV Medical Facility Notification	\$11,550.00	\$3,050.15	N/A	\$2,877.50	N/A
Sub-total	\$129,477.00	\$121,182.15	N/A	\$84,064.90	N/A
Total for all systems	\$6,161,178.59	\$4,867,512.67	N/A	\$3,369,102.78	N/A

Components

Actual Information Description	File Name
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MVPD Notification of Channel Change	Component Description:	Total Professional Services
	Amount:	\$2,000.00
	Component Description:	Total Professional Services
	Amount:	\$2,000.00
Develop and air announcement of upcoming channel change	Component Description:	Total Professional Services
	Amount:	\$289.90
Equipment Storage	Component Description:	WQCW-610-Equipment Storage
	Amount:	\$7,425.00
Disposal Costs (for equipment and other waste, net of any salvage value)	Component Description:	Quote # WQCW Demo
	Amount:	\$65,000.00
FCC Filing Fees - Form 2100 license to cover application	Component Description:	WQCW-610-License to Cover FCC Filing Fees
	Amount:	\$335.00
FCC Filing Fees - Special Temporary Authorization request	Component Description:	WQCW-610-STA FCC Filing Fees
	Amount:	\$400.00
Non-zoning permits	Information not provided.	

Equipment Delivery and Handling Charges	<div data-bbox="715 174 1027 210">Component Description:</div> <div data-bbox="1157 174 1315 286">WQCW-610-Equipment Delivery</div> <div data-bbox="715 297 831 327">Amount:</div> <div data-bbox="1157 297 1279 327">\$5,737.50</div>
DTV Medical Facility Notification	<div data-bbox="715 472 1027 508">Component Description:</div> <div data-bbox="1157 472 1366 658">Mailing: Print and mail a two page, black and white generically addressed letter</div> <div data-bbox="715 669 831 698">Amount:</div> <div data-bbox="1157 669 1279 698">\$2,877.50</div>

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$6,161,178.59	\$4,867,512.67	\$3,369,102.78

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>Robert Folliard , III . <i>Assistant Secretary</i></p> <p>08/04/2020</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>Robert Folliard , III . <i>Assistant Secretary</i></p> <p>08/04/2020</p>

Attachments