



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **6463** | Service: **DTV** | Call **WFXT** | Channel: **34 (UHF)** |
ID: | Sign:
File **0000027904**
Number:
FRN: **0029118650** | Date **07/11**
Submitted: **/2017**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
COX MEDIA GROUP NORTHEAST, LLC Doing Business As: COX MEDIA GROUP NORTHEAST, LLC	Director of Engineering 25 FOX DRIVE DEDHAM, MA 02027 United States	+1 (781) 467- 2525	sean. anker@coxinc. com	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
Sean Anker <i>Director of Engineering Cox Media Group Northeast, LLC</i>	Director of Engineering 25 Fox Drive Dedham, MA 02027 United States	+1 (781) 467- 2525	Sean.Anker@coxinc. 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	Move to American Tower interim site broadcasting on current channel while we prepare our current site for operation on new channel with new transmitter and new shared antenna.

Transmitters

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

**Auxiliary
Transmitter****Existing Transmitter Information**

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Backup
	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	DCX
	Year	2004
	Type	Inductive Output Tube
	IOT Power Type	Single
	Power Capacity	25 kW

**Auxiliary
Transmitter****New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	ULXTE-40
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	25.3 kW
	Justification for New Transmitter	Comark has advised us that they are no longer going to retune existing DCX transmitters.

**Auxiliary
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	2 inches

	Length	400.0 feet
	Other Electrical Service	Yes
	Description	Surge suppressor, UPS
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Cooling Only
	Size	15 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other 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

Auxiliary Transmitter

Other Transmitter Cost Not Listed

Name	Description
208V electrical distribution panel	A new electric distribution panel is required for the new 208V system.
480V Transformer 112.5kVA	The transmitter specifies a 112.5 kVA transformer to provide 208V power service.
UHF inside RF system including switching	Mask filter and accessories.

**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	DCX
	Year	1999
	Type	Inductive Output Tube
	IOT Power Type	Three
	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	ULXTE-60
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	38.0 kW
	Justification for New Transmitter	Comark has advised us that they can not retune our existing transmitter, and suitable output IOT transmitters cost more than the solid-state system.

**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	150 kVA
	Rigid Conduit and Wiring	Yes
	Size	2 inches
	Length	700.0 feet
	Other Electrical Service	Yes
	Description	Surge suppressor, UPS for control and transmitter electronics
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Heating and Cooling
	Size	30 tons
	Other Size	N/A tons
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold improvement?	Yes
	Size	1500.0 square feet
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Transmitter

Other Transmitter Cost Not Listed

Name	Description
UHF inside RF system including switching	Mask filter, dummy load, other accessories.

Replace generator transfer switch	Transfer switch replacement is necessary due to code compliance work noted in this section.
Ice Shield for HVAC equipment	Ice protection for HVAC compressor split units placed in close proximity of tower located within a geographical location prone to ice and snow.
20 Ton HVAC for combiner	20 ton HVAC system to provide cooling of the combiner facility.
208V distribution panel	Transmitter will require a new electric distribution panel for the 208V system.
Replace 1000A-480V electrical service entrance wiring	Required for code compliance due to the amount of electric work being permitted. Mains currently run through old cabinetry /transfer switch.
Replace 1000A-480V switchgear	Due to mains replacement for code compliance, the main disconnect and primary switch gear must be replaced.

**Interim
Transmitter**

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	ULXTE-24
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	16.1 kW
	Justification for New Transmitter	Continue service to Boston viewers during rework of primary site.

**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	2 inches
	Length	400.0 feet
	Other Electrical Service	Yes

	Description	Surge Suppression, UPS for transmission and control systems.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Type	Heating and Cooling
	Size	15 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
75kVA transformer	To convert 480V main power to 208V.
480V Electrical Sub-panel	New 480V electrical sub-panel wired off of the existing switchgear required to supply power for the additional transmitter added to the shared space. This space currently does not have sufficient power available.
Remote Control	System to allow remote control of the transmitter and associated equipment from the main studio location.

Studio to Transmitter Link	Cost to install and lease fiber STL for duration of operation and build backup microwave STL path.
208V Electrical distribution panel	New 208V panel and distribution for transmitter and related electronics

Antennas

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

**Primary
Antenna**

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Lease New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	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	Not in Stack
	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)	780.0 kW
	Manufacturer	

Model	TFU-19ETT /VP-R 4 C190
Year	2009

**Primary
Antenna**

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Lease New
	Is this a request for upgraded equipment?	No
	Ownership	Leased
	Owner	American Tower
	Is antenna shared?	Yes
	Is antenna directional?	Yes
	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	Bottom
	Polarization	Elliptical
	Type	Broadband Panel
	Number of Stations Supported	5
	Number of Panels/Bays	14
	Lower Limit	430.00 MHz
	Upper Limit	600.00 MHz
	Design power capacity in use	100.0 %
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	910.0 kW
	Manufacturer	
	Model	PEP56D

Year	2018
Justification for New Antenna	American Tower is removing the current top mounted antennas on the Needham Hts. candelabra and replacing it with a broadband panel. Other stations listed will be using as interim/aux.

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	5
	Frequencies of channels supported	RF channel
	Frequency	N/A
	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?	Single Channel

	Feed Line Size	7 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

Enter a list of RF channel numbers.

RF Channel Number
34
20
21
32
33

**Primary
Antenna**

Other Antenna Cost Not Listed

Name	Description
Combiner installation	Installation of combiner; Single chain of 5 high power constant impedance waveguide modules, and/or dual chains of 5 directional filter modules per Dielectric layout. required for broadband antenna system

**Interim
Antenna**

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Lease New
	Ownership	Leased
	Owner	American Tower Corporation
	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	Horizontal
	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)	300.0 kW
	Manufacturer	
	Model	TFU-24WB-1-R C170

	Year	2017
	Justification for New Antenna	American Tower Corp. will be providing the new interim facility. The antenna will be used to support WFXT and other stations during the repack process.

**Interim
Antenna**

Other Antenna Costs

Section	Question	Response
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	S
	Feed Line Size	8 3/16 inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for an antenna?	No
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

**Interim
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	Lease New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	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	1080 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	Lease New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	2
	Length	1250 feet per run
	Justification for New Transmission Line	We will have one run to the new combiner, and then two runs up the tower to the new antenna.

Primary
Transmission Line

Other Transmission Line Expenses Not Listed

Name	Description
Transmission line from transmitter to combiner	New transmission line to take the signal from the transmitter to the combiner.

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	8 3/16 inches
	Segment Length	Broadband
	Other Segment Length	
	Number of parallel runs	1
	Length	80 feet per run
	Justification for New Transmission Line	Transmission line from transmitter to antenna combiner connection point.

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?	Candelabra
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	No
	Is tower documented for structural analysis?	Unknown
	Is tower compliant with Rev G?	Unknown
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1004233
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	42° 18' 10.7" N-
	Longitude (NAD83)	071° 13' 04.9" W-
	Overall Structure Height	1200.77 feet
	Support Structure Height	1101.04 feet
	Ground Elevation Above Mean Sea Level (AMSL)	150.92 feet

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	American Towers, LLC
Date Constructed	04/19/2005

**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
23439	WBOS	FM
1901	WBZ-FM	FM
26897	WBMX	FM
73238	WLVI	DTV
9639	WODS	FM

**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:	Minor 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
Ground and Building A and E Permit Drawing Package	The generation of a construction drawing package.
Tower Permit Drawing Package	The generation of a construction drawing package.
Construction project management	Est. 12 hours on Modification project management and 20 hours for RF installation project management for a total of twenty 20 days,

**Outside
Professional**

Section	Question	Response
Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	95
	Explanation	ATC costs to manage all of the tower /antenna work.
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	Yes
	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	Yes
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes

	For Auxiliary Facility	Yes
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	Yes
	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	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
RF Field Engineering Services	Comprehensive coverage verification via field study	Yes
	RF exposure measurements	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
RF System Test	Testing of the combiner to ensure all frequencies are tuned for optimal patterns.
ATC Perform engineering study for new channel assignment and antenna development	ATC's cost to perform engineering study for new channel assignment and antenna development

Site Coordination Meeting	Site coordination meetings with all broadcasters, contractors and vendors involved with the site deliveries and construction. This cost is for travel and logistics expenses accrued.
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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	Yes
	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

Name	Description
Interim Site Construction Project Management	(24) hours on Modification project management and RF installation project management.
Interim Site Ground and Building Permit Drawings	The generation of a construction drawing package for one (1) broadcasters /customers.
Interim Site Lease	One-time lease payment to cover the duration of the interim site construction and operation time periods.
Interim Site Tower Permit Drawing Package	The generation of a construction drawing package for one (1) broadcasters /customers.
Interim Site Tower Rigging	Includes the installation of the new antenna, refurbishing of two (2) transmission Lines, any required tower bracket material to support the additional transmission line on the tower, and one 44' antenna stub section (labor included).
Interim Site transition timing and coordination	Coordination and transition planning with all parties onsite.
Interim Site Building Permits	The cost of prep and submission of the forms for permits, on behalf of the one (1) broadcasters for jurisdictional permits, required for electrical, building and other required tasks associated with the install of the equipment in the transmitter space.
Interim Site Equipment Delivery and Handling Costs	This cost is for the material/equipment, delivery and offloading by third party contractors.
Interim Site Public Hearing	Public hearing to alter height of tower by changing top antenna.
Interim Site RF System Test	Testing of the combiner to ensure all frequencies are tuned for optimal patterns.
Interim Site Site Coordination Meeting	Site coordination meetings with all broadcasters, contractors and vendors involved with the site deliveries and construction. This cost is for travel and logistics expenses accrued.

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-24	\$1,050,685.27	\$800,100.71		\$0.00	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$511,964.82	N/A	N/A	N/A
480V Electrical Sub-panel	<i>\$10,000.00</i>	\$10,000.00	ATC estimate	N/A	N/A
Remote Control	<i>\$13,500.00</i>	\$13,500.00	N/A	N/A	N/A
Studio to Transmitter Link	<i>\$78,000.00</i>	\$78,000.00	Combined monthly cost for fiber link during interim operation, plus antennas, receiver, and tower work for microwave STL path.	N/A	N/A
2" Rigid Conduit and Wiring (Cost per foot)	\$10,400.00	\$10,000.00	N/A	N/A	N/A
Other Electrical Service: Surge Suppression, UPS for transmission and control systems.	<i>\$6,000.00</i>	\$6,000.00	N/A	N/A	N/A

15 Ton system	\$88,400.00	\$84,000.00	Widelity cost estimate for a 15 ton HVAC system	N/A	N/A
UHF inside RF system including switching	\$147,500.00	\$73,750.62	N/A	N/A	N/A
75kVA transformer	\$2,885.27	\$2,885.27	Equipment cost only. Installation included wiring costs.	N/A	N/A
208V Electrical distribution panel	\$10,000.00	\$10,000.00	N/A	N/A	N/A
Primary Transmitter ULXTE-60	\$1,955,351.97	\$1,557,535.14		\$0.00	
Other Electrical Service: Surge suppressor, UPS for control and transmitter electronics	\$6,500.00	\$6,500.00	N/A	N/A	N/A
208V distribution panel	\$10,000.00	\$10,000.00	N/A	N/A	N/A
20 Ton HVAC for combiner	\$22,000.00	\$22,000.00	N/A	N/A	N/A
2" Rigid Conduit and Wiring (Cost per foot)	\$18,200.00	\$12,500.00	N/A	N/A	N/A
UHF inside RF system including switching	\$138,801.97	\$138,801.97	N/A	N/A	N/A
Replace 1000A-480V switchgear	\$50,000.00	\$50,000.00	N/A	N/A	N/A

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,108,196.29	N/A	N/A	N/A
Transformer 3 phase/480v - 150 KVA	\$25,550.00	\$6,236.88	This cost is for the equipment only. Installation costs will be included in wiring costs.	N/A	N/A
30 Ton system	\$166,000.00	\$158,000.00	N/A	N/A	N/A
Replace 1000A-480V electrical service entrance wiring	\$17,500.00	\$17,500.00	N/A	N/A	N/A
Other -- Building Addition Size: 1500.0	\$1,800.00	\$1,800.00	Partition walls for security. ATC supplied cost.	N/A	N/A
Ice Shield for HVAC equipment	\$4,000.00	\$4,000.00	Ice protection for HVAC compressor split units placed in close proximity of tower located within a geographical location prone to ice and snow.	N/A	N/A
Replace generator transfer switch	\$22,000.00	\$22,000.00	N/A	N/A	N/A

Auxiliary Transmitter ULXTE-40	\$1,121,673.10	\$930,147.20		\$0.00	
UHF inside RF system including switching	\$91,000.00	\$91,000.00	N/A	N/A	N/A
208V electrical distribution panel	\$10,000.00	\$10,000.00	N/A	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 21 - 31 kW	\$947,000.00	\$762,424.10	N/A	N/A	N/A
2" Rigid Conduit and Wiring (Cost per foot)	\$10,400.00	\$6,250.00	N/A	N/A	N/A
480V Transformer 112.5kVA	\$2,973.10	\$2,973.10	Equipment cost only. Installation is included in wiring costs.	N/A	N/A
Other Electrical Service: Surge suppressor, UPS	\$4,500.00	\$4,500.00	N/A	N/A	N/A
15 Ton system	\$55,800.00	\$53,000.00	Widely cost estimate for a 15 ton cooling system	N/A	N/A
Sub-total	\$4,127,710.34	\$3,287,783.05	N/A	\$0.00	N/A
Total for all systems	\$6,616,879.34	\$4,752,412.05	N/A	\$0.00	N/A

Components

Information not provided.

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TFU-24WB-1-R C170	\$211,480.00	\$155,000.00		\$0.00	
Elbow complex, single channel, at antenna input, per 8 3 /16. feedline (if needed)	\$15,250.00	\$12,000.00	Cost provided by ATC as part of the interim site project.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$5,000.00	Cost provided by ATC as part of the interim site project.	N/A	N/A
UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	\$189,500.00	\$138,000.00	Cost provided by ATC as part of the interim site project.	N/A	N/A
Primary Antenna PEP56D	\$379,333.00	\$351,703.00		\$0.00	

UHF - High Power Top Mount Five Station broadband panel antenna elliptically or circularly polarized	\$267,503.00	\$267,503.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$3,000.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A

New combiner, cost per channel (without antenna)	\$84,200.00	\$67,000.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Elbow complex, single channel, at antenna input, per 7 3 /16. feedline (if needed)	\$13,900.00	\$7,200.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A

Combiner installation	\$7,000.00	\$7,000.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Sub-total	\$590,813.00	\$506,703.00	N/A	\$0.00	N/A
Total for all systems	\$6,616,879.34	\$4,752,412.05	N/A	\$0.00	N/A

Components

Information not provided.

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	\$31,920.00	\$30,320.00		\$0.00	
Rigid Transmission Line - copper, 8 3/16" broadband	\$31,920.00	\$30,320.00	N/A	N/A	N/A
Primary Transmission Line	\$872,500.00	\$297,500.00		\$0.00	
Rigid Transmission Line - copper, 7 3/16" broadband	\$832,500.00	\$257,500.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Transmission line from transmitter to combiner	<i>\$40,000.00</i>	\$40,000.00	N/A	N/A	N/A
Sub-total	\$904,420.00	\$327,820.00	N/A	\$0.00	N/A
Total for all systems	\$6,616,879.34	\$4,752,412.05	N/A	\$0.00	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 Cost Justification
Primary Tower GTOWER	\$618,700.00	\$276,840.00		\$0.00	
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$7,440.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$80,000.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A

Complex Tower (includes, for example, those with candelabras and /or stacked antennas)	\$421,000.00	\$176,000.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Ground and Building A and E Permit Drawing Package	\$4,700.00	\$4,700.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A

Tower Permit Drawing Package	\$4,700.00	\$4,700.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Construction project management	\$4,000.00	\$4,000.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Sub-total	\$618,700.00	\$276,840.00	N/A	\$0.00	N/A
Total for all systems	\$6,616,879.34	\$4,752,412.05	N/A	\$0.00	N/A

Components

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	\$197,345.00	\$175,980.00		\$0.00	
RF System Test	<i>\$15,000.00</i>	\$15,000.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Project management of the transition	\$15,010.00	\$9,480.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A

Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	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	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	N/A	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	\$2,105.00	\$2,000.00	N/A	N/A	N/A

Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, 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 - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	N/A	N/A
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	\$4,210.00	\$4,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	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
Environmental Assessment, if triggered by NEPA Section 106 review or for certain structures over 450 feet	\$10,520.00	\$2,500.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	N/A	N/A	N/A
Site Coordination Meeting	\$3,750.00	\$3,750.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A

ATC Perform engineering study for new channel assignment and antenna development	\$5,000.00	\$5,000.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim/aux users.	N/A	N/A
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A
Sub-total	\$197,345.00	\$175,980.00	N/A	\$0.00	N/A
Total for all systems	\$6,616,879.34	\$4,752,412.05	N/A	\$0.00	N/A

Components

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	\$177,891.00	\$177,286.00		\$0.00	
Interim Site Lease	<i>\$57,600.00</i>	\$57,600.00	N/A	N/A	N/A
Interim Site Building Permits	<i>\$750.00</i>	\$750.00	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	\$5,000 ATC estimate, plus \$15,000 estimate for recycling and removal of oil-filled power supplies, tubes, and other equipment.	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$6,000.00</i>	\$6,000.00	ATC estimated \$3,000 for Main site and \$3,000 for Interim site.	N/A	N/A
Equipment Storage	<i>\$8,000.00</i>	\$8,000.00	External locked storage container to store equipment during construction.	N/A	N/A

Develop and air announcement of upcoming channel change	\$15,000.00	\$15,000.00	N/A	N/A	N/A
MVPD Notification of Channel Change	\$2,001.00	\$2,001.00	N/A	N/A	N/A
Interim Site Construction Project Management	\$3,000.00	\$3,000.00	N/A	N/A	N/A
Interim Site Ground and Building Permit Drawings	\$4,700.00	\$4,700.00	N/A	N/A	N/A
Interim Site transition timing and coordination	\$2,000.00	\$2,000.00	N/A	N/A	N/A
Interim Site Equipment Delivery and Handling Costs	\$3,000.00	\$3,000.00	N/A	N/A	N/A
Interim Site Public Hearing	\$240.00	\$240.00	N/A	N/A	N/A
Interim Site RF System Test	\$3,000.00	\$3,000.00	N/A	N/A	N/A
Interim Site Site Coordination Meeting	\$960.00	\$960.00	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
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A

Interim Site Tower Permit Drawing Package	\$4,700.00	\$4,700.00	N/A	N/A	N/A
Interim Site Tower Rigging	\$33,000.00	\$33,000.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
Local Zoning	\$750.00	\$750.00	Cost provided by ATC as part of the main site project. WFXT will be the primary user. WCVB, WBZ, WSBK, and WGBX will be interim /aux users.	N/A	N/A
Sub-total	\$177,891.00	\$177,286.00	N/A	\$0.00	N/A
Total for all systems	\$6,616,879.34	\$4,752,412.05	N/A	\$0.00	N/A

Components

Information not provided.

Cost Information	Grand Total		
		Predetermined Cost Estimate	Estimated Cost
			Actual Cost
	Total for all systems	\$6,616,879.34	\$4,752,412.05
			\$0.00

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>Tom Raponi <i>Vice President and General Manager</i></p> <p>07/11/2017</p>

Attachments