

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: File	6104 00000	Service: DTV	Call Sign:	WKAR-TV	Channel: 33 (UHF)
Number:		21000			
FRN: 00	07619026	Date	01/08		
		Submitted:	/2018		

Applicant Name, Type, and Contact Information

Information

า	Applicant	Address	Phone	Email	Applicant Type
	BOARD OF TRUSTEES, MICHIGAN STATE UNIVERSITY Doing Business As: BOARD OF TRUSTEES, MICHIGAN STATE UNIVERSITY	Susanne Elkins, Director of Broadcasting WKAR-AM/FM /TV 404 WILSON RD, ROOM 212 EAST LANSING, MI 48824 United States	+1 (517) 884- 4700	susi@wkar. org	Private Not- for-Profit Educational Institution

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Preparer Contact Name and Information

Contact Information	Applicant	Address	Phone	Email
	Gary Blievernicht Chief Engineer	Gary Blievernicht 404 Wilson Road	+1 (517) 884- 4720	garyb@wkar. org
	WKAR - TV Michigan State University	Room 212 East Lansing, MI 48824 United States		0.9

Broadcaster	Question	Response
Information and Transition Plan	Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
	Briefly describe transition plan	Replacement of the licensed main antenna, licensed auxiliary antenna, the 6" transmission line to the main antenna, the mask filter and the transmitters to complete reassignment from UHF channel 40 to channel 33 in phase 7 of channel repack.

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

Auxiliary	Add Transmitter Information				
Transmitter	Section	Question	Response		
	Existing Transmitter Description	Type of change	Purchase New		
		Use	Auxiliary (Backup)		
		Description of Use	Auxiliary /Backup transmitter		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is this transmitter currently shared with another station?	No		
		Is this transmitter currently in operating condition?	Yes		
	Existing Transmitter	Manufacturer			
	Manufacturer and Type	Model	CSTII		
		Year	1997		
		Туре	Inductive Output Tube		
		IOT Power Type	Single		
		Power Capacity	30 kW		

ransmitter	Section	Question	Response
	New Transmitter	Use	Auxiliary (Backup)
		Change Type	Purchase New
		Is this a request for upgraded equipment?	Yes
		Manufacturer	
		Model	THU9EVO /THU9/THV9
		Transmitter Type	Solid State
		Solid State Cooling	Liquid Coole
		Solid State Power capacity	20 kW
		Justification for New Transmitter	The present WKAR transmitter is a 30 kW, ABS CST II IOT transmitter with dual exciters. The transmitter manufacture no longer exists and available parts are in limited supply. No mainstream manufacture will support its conversion to a new channel.

Auxiliary	Other Transmitter Costs				
Transmitter	Section	Question	Response		
	Electrical Service	Service Entrance (3 phases 800A 208V)	Yes		
		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	No		
		Description	N/A		
	HVAC Service	Does the replacement transmitter require HVAC Service?	No		
		Туре	N/A		
		Size	N/A		
		Other Size	N/A		
	Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No		
		Size	N/A		
	Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A		
		Is a channel 14 Mask Filer needed?	N/A		
		Is additional field engineering time needed?	N/A		
		Number of Days	N/A		

Other Transmitter Cost Not Listed Auxiliary

Transmitter Information not provided.

Primary	Existing Transmitter Information				
Transmitter	Section	Question	Response		
	Existing Transmitter Description	Type of change	Purchase New		
		Use	Primary (Main)		
		Description of Use	N/A		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is this transmitter currently shared with another station?	No		
		Is this transmitter currently in operating condition?	Yes		
	Existing Transmitter	Manufacturer			
	Manufacturer and Type	Model	CST II		
		Year	1997		
		Туре	Inductive Output Tube		
		IOT Power Type	Single		
		Power Capacity	30 kW		

Existing Transmitter Information

Primary	New Transmitter Costs				
Transmitter	Section	Question	Response		
	New Transmitter	Use	Primary (Main)		
		Change Type	Purchase New		
		Is this a request for upgraded equipment?	Yes		
		Manufacturer			
		Model	THU9EVO /THU9/THV9		
		Transmitter Type	Solid State		
		Solid State Cooling	Liquid Cooled		
		Solid State Power capacity	20 kW		
		Justification for New Transmitter	The present WKAR transmitter is a 30 kW, ABS CST II IOT transmitter with dual exciters. The transmitter manufacturer no longer exists and available parts are in limited supply. No mainstream manufacturer will support its conversion to a new channel.		

Primary	Other Transmitter Costs				
Transmitter	Section	Question	Response		
	Electrical Service	Service Entrance (3 phases 800A 208V)	Yes		
		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	No		
		Description	N/A		
	HVAC Service	Does the replacement transmitter require HVAC Service?	No		
		Туре	N/A		
		Size	N/A		
		Other Size	N/A		
	Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No		
		Size	N/A		
	Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A		
		Is a channel 14 Mask Filer needed?	N/A		
		Is additional field engineering time needed?	N/A		
		Number of Days	N/A		

Primary Other Transmitter Cost Not Listed

Transmitter Information not provided.

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

Auxiliary	Existing Antenna Information				
Existing	Section	Question	Response		
	Existing Antenna Description	Type of change	Purchase New		
		Antenna Use	Auxiliary (Backup)		
		Description of Use	Auxiliary /Backup		
		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?	No		
	Existing Antenna	Class	Full Power		
	Manufacturer and Type	Mounting	Side Mount		
		Antenna position in stack	Not in Stack		
		Polarization	Horizontal		
		Туре	Slotted Coaxial		
		Number of Stations Supported	N/A		
		Number of Panels	N/A		
		Design power capacity in use	N/A		
		Lower Limit	N/A		
		Upper Limit	N/A		
		Other Antenna Type	N/A		
		ERP: (Effective Radiated Power)	90.0 kW		

Existing Antenna Information

Manufacturer	
Model	TLP-16B-R
Year	2011

Auxiliary	New Antenna Costs					
Antenna	Section	Question	Response			
	New Antenna Description	Use	Auxiliary (Backup)			
		Description of Use	Auxiliary /Backup			
		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?	No			
	New Antenna Manufacturer and Types	Class	Full Power			
		Mounting	Side Mount			
		Antenna position in stack	Not in Stack			
		Polarization	Horizontal			
		Туре	Broadband Slot			
		Number of Stations Supported	1			
		Number of Panels/Bays	16			
		Lower Limit	518.00 MHz			
		Upper Limit	608.00 MHz			
		Design power capacity in use	90.0 %			
		Other Antenna Type	N/A			
		ERP: (Effective Radiated Power)	90.0 kW			
		Manufacturer				

Model	ATC- BCE414OM 33
Year	2019
Justification for New Antenna	Existing licensed antenna was designed and constructed for single channel, 40, operation.

Auxiliary Other Antenna Costs

Айлінаі у						
Antenna	Section	Question	Response			
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No			
		Туре				
		Number of channels supported	N/A			
		Frequencies of channels supported	N/A			
		Frequency	N/A			
		Do you need a combiner output splitter /switcher for dual feed lines?	N/A			
	Elbow Complex	Do you require the separate purchase of the Elbow Complex?	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 a high power antenna?	Yes			
	Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No			

Sweep	Test
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Auxiliant Other Antenna Cost Not Listed

AuxiliaryOther Antenna CostAntennaInformation not provided.

Primary	Existing Antenna Information				
Antenna	Section	Question	Response		
	Existing Antenna Description	Type of change	Purchase New		
		Antenna Use	Primary (Main)		
		Description of Use	N/A		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is the existing antenna shared with another station or stations?	No		
		Is the existing antenna directional?	Yes		
		Is antenna in operating condition?	Yes		
		Is antenna located on or in close proximity to an antenna farm?	No		
	Existing Antenna	Class	Full Power		
	Manufacturer and Type	Mounting	Top Mount		
		Antenna position in stack	Not in Stack		
		Polarization	Elliptical		
		Туре	Slotted Coaxial		
		Number of Stations Supported	N/A		
		Number of Panels	N/A		
		Design power capacity in use	N/A		
		Lower Limit	N/A		
		Upper Limit	N/A		
		Other Antenna Type	N/A		
		ERP: (Effective Radiated Power)	425.0 kW		

Manufacturer	
Model	TFU-23ETT /VP-E C170
Year	2011

Primary	New Antenna Costs				
Antenna	Section	Question	Response		
	New Antenna Description	Use	Primary (Main)		
		Description of Use	N/A		
		Change Type	Purchase New		
		Is this a request for upgraded equipment?	No		
		Ownership	Owned		
		Owner	N/A		
		Is antenna shared?	No		
		Is antenna directional?	Yes		
		Will antenna be located on or in close proximity to an antenna farm?	No		
	New Antenna	Class	Full Power		
	Manufacturer and Types	Mounting	Top Mount		
		Antenna position in stack	Not in Stack		
		Polarization	Elliptical		
		Туре	Slotted Coaxial		
		Number of Stations Supported	N/A		
		Number of Panels/Bays	N/A		
		Lower Limit	N/A		
		Upper Limit	N/A		
		Design power capacity in use	N/A		
		Other Antenna Type	N/A		
		ERP: (Effective Radiated Power)	375.0 kW		
		Manufacturer			
			1		

Model	ATC- BCE322C1 V1-33
Year	2019
Justification for New Antenna	Current antenna was designed and constructed for single channel, 40, operation.

Primary Other Antenna Costs

	Section	Question	Response
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
		Туре	
		Number of channels supported	N/A
		Frequencies of channels supported	N/A
		Frequency	N/A
		Do you need a combiner output splitter /switcher for dual feed lines?	N/A
	Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
		Broadband or Single Channel?	Broadband
Side Mount Brackets		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
AntennaOther Antenna Cost Not ListedInformation not provided.

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

Existing Transmission Line

missior	n Section	Question	Response
	Existing Transmission Line Description	Type of change	Utilize Existing
		Use	Auxiliary (Backup)
		Description of Use	Auxiliary /Backup
		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	Andrew
		Туре	Flexible Foam
		Diameter	Other
		Other Diameter	3 inches
		Segment Length	N/A
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	580 feet per run

Auxiliary Other Transmission Line Expenses Not Listed

Auxiliary Other Transmission Transmission

ransmissio	Section	Question	Response
	Existing Transmission Line Description	Type of change	Purchase New
		Use	Primary (Main)
		Description of Use	N/A
		Ownership	Owned
		Owner	N/A
		Site	N/A
		Is the existing transmission line shared with another station or stations?	No
		Is Transmission Line in operating condition?	Yes
	Existing Transmission	Manufacturer	
	Line Manufacturer and Type	Туре	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	1050 feet per run

Primary Existing Transmission Line

Primary	New Transmission Line		
Transmissio	n 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
		Туре	Rigid
		Diameter	6 1/8 inches
		Other Diameter	N/A
		Segment Length	Broadband
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	1050 feet per run
		Justification for New Transmission Line	Current line is in 20' segment lengths which are prohibited for use on Ch.33

Primary Other Transmission Line Expenses Not Listed

Transmission to me tion not provided.

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

marv	Existing	Tower
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Primary	Existing Tower			
Tower	Section	Question	Response	
	Existing Tower Description	Type of change	Modify Existing	
		Tower Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Is this tower consider Complex?	No	
		Is this tower currently shared with any other stations?	No	
		One or more FM, AM or TV radio broadcaster(s)	N/A	
		Others Types of Users	N/A	
		Is tower documented for structural analysis?	Yes	
		Is tower compliant with Rev G?	Yes	
	Existing Tower Structure Registration	Do you have a tower registration number?	Yes	
		ASR Number	1265362	
	Coordinates (NAD83 (North American Datum of	Latitude (NAD83)	42° 42' 06.9" N-	
	1983))	Longitude (NAD83)	084° 24' 47.8" W-	
		Overall Structure Height	1027.87 feet	
		Support Structure Height	977.02 feet	
		Ground Elevation Above Mean Sea Level (AMSL)	850.06 feet	

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Board of Trustees, Michigan State University
Date Constructed	07/05/2011

Primary Tower Modification Costs

Tower

Tower

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:	Minor Reinforcements needed

Primary Tower Rigging Costs

SectionQuestionResponseTower Rigging CostsComplex TowerN/AHelicopter Services
RequiredAre helicopter services required?No

Primary Other Tower Expenses Not Listed

Tower Information not provided.

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	400
		Explanation	WKAR-TV is a relatively small public television station and has an engineering staff of three people, responsible for the studio and transmitter operations and maintenance, and the maintenance of the WKAR- AM, WKAR- FM, and co- owned W233CH and WDBM-FM trans
	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	Prepare and file Form FCC Construction Permit Application	Yes
Services	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	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	No
RF Field Engineering Services	Comprehensive coverage verification via field study	No

RF exposure measurements	Yes
Additional Field Engineering Service	No
Number of Days	N/A
Justification	N/A

Other Professional Services Expenses Not Listed Professional Services rCostsided.

Other	Section	Question	Response
Expenses	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	No
		FCC Special Temporary Authority Application	No
	Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
		Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
		Does this relocation require Equipment Storage?	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		
	Staff Time	Administrative Staff Time for requisitions, payments and reimbursement related to repack		
	Staff Time	Engineering Staff time related to repack		

Transmitters

Cost Information

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

	Predetermined	Estimated	Estimated Cost		Actual Cost
Description Primary	Cost Estimate \$698,400.00	Cost \$663,700.00	Justification	Actual Cost \$0.00	Justification
Transmitter THU9EVO /THU9/THV9	4030,400.00	¥003,700.00		φ0.00	
UHF - Liquid Cooled Solid State Transmitter 14.2 - 20 kW	\$684,000.00	\$650,000.00	N/A	N/A	N/A
Service entrance 3 phase/800 amp/208 volt	\$14,400.00	\$13,700.00	N/A	N/A	N/A
Auxiliary Transmitter THU9EVO /THU9/THV9	\$698,400.00	\$663,700.00		\$0.00	
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 14.2 - 20 kW	\$684,000.00	\$650,000.00	N/A	N/A	N/A
Sub-total	\$1,396,800.00	\$1,327,400.00	N/A	\$0.00	N/A

Total for	\$2,645,857.00	\$2,382,162.00	N/A	\$342,390.20	N/A
all					
systems					

Components

Information not provided.

Antennas

Cost Information

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

Description Primary Antenna ATC- BCE322C1- V1-33	Predetermined Cost Estimate \$309,930.00	Estimated Cost \$294,400.00	Estimated Cost Justification	Actual Cost \$161,028.00	Actual Cost Justification
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	\$13,700.00	\$13,000.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$275,000.00	N/A	\$161,028.00	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Auxiliary Antenna ATC- BCE414OM- 33	\$119,280.00	\$113,400.00		\$0.00	

UHF - Lower Power Side Mount, One station antenna - medium power (50- 200 kW), horizontally polarized	\$89,400.00	\$85,000.00	N/A	N/A	N/A
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Sub-total	\$429,210.00	\$407,800.00	N/A	\$161,028.00	N/A
Total for all systems	\$2,645,857.00	\$2,382,162.00	N/A	\$342,390.20	N/A

Components

Actual Information Description	File Name
Elbow complex, broadband, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.

UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	Component Description:	Channel 33 Antenna, C-170 Pattern, W/Flash beacon & lightening protector, radome h & v 25% polarity
	Amount:	\$161,028.00
Sweep test of existing antenna	Information not provided.	
UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized	Information not provided.	
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	
Sweep test of existing antenna	Information not provided.	

Transmission Line

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	\$243,600.00	\$232,050.00		\$179,262.20	
Rigid Transmission Line - copper, 6 1 /8" broadband	\$243,600.00	\$232,050.00	N/A	\$179,262.20	N/A
Auxiliary Transmission Line	\$0.00	\$0.00		\$0.00	
Sub-total	\$243,600.00	\$232,050.00	N/A	\$179,262.20	N/A
Total for all systems	\$2,645,857.00	\$2,382,162.00	N/A	\$342,390.20	N/A

Components

Actual Information Description	File Name	
Rigid Transmission Line - copper, 6 1/8" broadband	Component Description:	Transmission line, 6-1/8" 75 OHM, wideband (UHF Channels 14-40) Apprx. 1090' elbows, elbow complex, gas barriers, horizontal & vertical hangers, test adapters, variable matching networks \$179,262.20

Tower Equipment and Rigging Costs

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$381,100.00	\$227,000.00		\$0.00	
Tall Tower (greater than 500')	\$210,500.00	\$200,000.00	N/A	N/A	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$15,000.00	N/A	N/A	N/A
Structural engineering tower load study for well documented tower	\$12,600.00	\$12,000.00	N/A	N/A	N/A
Sub-total	\$381,100.00	\$227,000.00	N/A	\$0.00	N/A
Total for all systems	\$2,645,857.00	\$2,382,162.00	N/A	\$342,390.20	N/A

Components

Information not provided.

Outside Professional Services

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$124,435.00	\$117,750.00		\$2,100.00	
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	\$2,105.00	\$2,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	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
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 - 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), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	\$150.00	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 engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A

Total for all systems	\$2,645,857.00	\$2,382,162.00	N/A	\$342,390.20	N/A
Sub-total	\$124,435.00	\$117,750.00	N/A	\$2,100.00	N/A
Project management of the transition	\$63,200.00	\$60,000.00	N/A	N/A	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$150.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$825.00	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$975.00	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

Components

Actual Information Description	File Name
RF Exposure Measurements	Information not provided.

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	Information not provided.	
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.	
Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application	Information not provided.	
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Prepare request for Special Temporary Authorization	Component Description: Amount:	Analysis of WKAR move to Early Phase of repack \$150.00
RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover	Information not provided.	

RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	6.5 hours for preparation of engineering section of FCC Form 2100 (main), Construction Application Permit \$975.00
Perform engineering study for new channel assignment and antenna development	Component Description: Amount:	.5 hour of perform engineering study for new channel assignment and antenna development \$75.00
	Component Description: Amount:	Prepare engineering study for new channel assignment and antenna development- 5 hours \$750.00
Prepare and or review reimbursement form	Component Description: Amount:	1.0 hour for prepare and review reimbursement form 399 \$150.00
Project management of the transition	Information not provided.	

Other Expenses

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$70,712.00	\$70,162.00		\$0.00	
Staff Time	\$20,500.00	\$20,500.00	N/A	N/A	N/A
MVPD Notification of Channel Change	\$100.00	\$100.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	\$100.00	\$100.00	N/A	N/A	N/A
Equipment Storage	\$1,000.00	\$1,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	\$5,000.00	\$5,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$31,462.00	\$31,462.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
Non-zoning permits	\$1,000.00	\$1,000.00	N/A	N/A	N/A
Sub-total	\$70,712.00	\$70,162.00	N/A	\$0.00	N/A

Total for all	\$2,645,857.00	\$2,382,162.00	N/A	\$342,390.20	N/A
systems					

Components

Information not provided.

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$2,645,857.00	\$2,382,162.00	\$342,390.20

Reimbursem	entestiatus	Response
	The facility has ceased operating on its pre- auction channel.	No
	Construction of final facilities or all necessary modifications are complete.	No
	All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator.	No

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
		 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).
- The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
- 6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
- 7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

	8.	The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.	
-	an aut namec	re, under penalty of perjury, that I am horized representative of the above- I applicant for the Authorization(s) ed above.	Stephanie A DeClercq Fiscal Officer 01/08/2018

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		 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).
- 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.

8.	The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.	
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.	
an au name	are, under penalty of perjury, that I am thorized representative of the above- d applicant for the Authorization(s) ied above.	Stephanie A DeClercq <i>Fiscal</i> <i>Officer</i> 01/08/2018

Attachments

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