

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID:	34196	Service: DTV	Call Sign:	WKHA	Channel: 33 (UHF)
File Number:	00000	26906			
FRN: 00	01790583	Date Submitted:	02/04 /2019		

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
KENTUCKY AUTHORITY FOR EDUCATIONAL TV Doing Business As: KENTUCKY AUTHORITY FOR EDUCATIONAL TV	Shae Hopkins 600 COOPER DR LEXINGTON, KY 40502 United States	+1 (859) 258- 7000	SHOPKINS@KET. ORG	Government Entity

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		
	Greg Best Consulting Engineer Greg Best Consulting, Inc.	16100 Outlook Avenue Stilwell, KS 66085 United States	+1 (816) 792- 2913	gbconsulting54@gmail. com		

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	Please see attached repack plan exhibit.

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

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	DHD20P1			
		Year	2001			
		Туре	Solid State			
		Solid State Cooling	Air Cooled			
		Solid State Power Capacity	5 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?	No			
		Manufacturer				
		Model	Maxiva UAXTE-8			
		Transmitter Type	Solid State			
		Solid State Cooling	Air Cooled			
		Solid State Power capacity	5 kW			
		Justification for New Transmitter	Pre-auction transmitter no longer supported by supplier; not re- tunable.			

Primary	Other Transmitter Costs					
Transmitter	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	3 inches			
		Length	50.0 feet			
		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

Primary Other Transmitter Co Transmitter Information not provided.

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

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	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)	38.2 kW			

Manufacturer	
Model	TFU-20JTH- R S170
Year	2015

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?	Yes	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	No	
New Antenna Manufacturer and Type		Will antenna be located on or in close proximity to an antenna farm?	No	
		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)	55.9 kW	
		Manufacturer		
			1	

Model	ATW22H4- ETO-33H
Year	2017
Justification for New Antenna	Primary antenna is not broadband or able to be tuned to a new channel.

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?	Single Channel
	Feed Line Size	6 1/8 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	No
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No

Sweep	Test
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Primary Other Antenna Cost Not Listed

Antenna Information not provided.

Transmission ⁹	Sention	Question	Response
	Transmission Line Related Expenses	Do you have transmission line related expenses?	No

Tower	Section	Question	Response
Equipment And Rigging Costs	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	Owned		
		Is this tower consider Complex?	No		
		Is this tower currently shared with any other stations?	Yes		
		One or more FM, AM or TV radio broadcaster(s)	Yes		
		Others Types of Users	No		
		Is tower documented for structural analysis?	No		
		Is tower compliant with Rev G?	No		
	Existing Tower Structure Registration	Do you have a tower registration number?	Yes		
		ASR Number	1044020		
	Coordinates (<u>NAD83 (</u> North American Datum of 1983))	Latitude (NAD83)	37° 11' 35.0" N-		
		Longitude (NAD83)	083° 11' 17.0" W-		
		Overall Structure Height	606.62 feet		

Support Structure Height	559.38 feet
Ground Elevation Above Mean Sea Level (AMSL)	1997.02 feet
Structure Type	TOWER - Free Standing or Guyed Structur
Tower Owner	KENTUCKY AUTHORITY FOR EDUCATIONA TELEVISION DBA = WKHA
Date Constructed	01/01/1968

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
18306	WEKH	FM

Primary Tower Modification Costs

Tower

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

Primary Tower	Tower Rigging Costs			
	Section	Question	Response	
	Tower Rigging Costs	Complex Tower	N/A	
	Helicopter Services Required	Are helicopter services required?	No	

Primary Other Tower Expenses Not Listed

Tower

NameDescriptionLoad StudyStructural engineering tower load study is
required to design tower reinforcements
and rigging.

Outside	Section	Question	Response
Professional	Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	80
		Explanation	KET Staff require outside services to manage the upgrades.
	Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
		Prepare engineering section of Form FCC Construction Permit Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare engineering section of Form FCC License to Cover Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare request for Special Temporary Authority	Yes
		Quantity	1
		Do you have Distributed Transmission System engineering services?	N/A
		Critical Facility	N/A
		Terrain-Shielded Facility	N/A
	Attorney and Other Outside Consulting	Prepare and file Form FCC Construction Permit Application	Yes
	Services	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	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

Professional	Services Costs	Description	
	Progress and Transition Reports	Engineering Fees	

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	No
		BLM or NFS Coordination	No
		FCC Construction Permit Minor Change	No
		FCC License to Cover Application	No
		FCC Special Temporary Authority Application	No
	Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
		Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	No
		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 Not Listed

Expenses Information not provided.

Transmitters

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 Transmitter Maxiva UAXTE-8	\$291,700.00	\$277,450.00		\$0.00	
UHF - Air Cooled Solid State Transmitter 4 - 6 kW	\$236,500.00	\$225,000.00	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
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$2,600.00	\$2,450.00	N/A	N/A	N/A
Sub-total	\$291,700.00	\$277,450.00	N/A	\$0.00	N/A
Total for all systems	\$1,092,060.00	\$1,163,700.00	N/A	\$154,444.87	N/A

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	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna ATW22H4- ETO-33H	\$308,530.00	\$259,500.00		\$0.00	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$12,800.00	Transition requires two sweeps of transmission equipment. Please see attached Repack Plan Exhibit for details.	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$235,000.00	Cost estimate adjusted for reimbursement of horizontal- polarized antenna like the pre-repack primary antenna.	N/A	N/A
Sub-total	\$308,530.00	\$259,500.00	N/A	\$0.00	N/A

Total for	\$1,092,060.00	\$1,163,700.00	N/A	\$154,444.87	N/A
all					
systems					

Components

Information not provided.

Cost Transmission Line

Information Information not provided.

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	\$406,800.00	\$552,000.00		\$150,000.00	
Minor tower reinforcement /modifications	\$158,000.00	\$150,000.00	N/A	\$142,500.00	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$25,000.00	N/A	\$7,500.00	N/A
Load Study	\$12,000.00	\$12,000.00	Structural engineering tower load study is required to design tower reinforcements and rigging.	N/A	N/A

Tall Tower (greater than 500')	\$210,500.00	\$365,000.00	KET obtained quotation of realistic scope of tower rigging work from reputable supplier. Please see attached Tower Work exhibit.	N/A	N/A
Sub-total	\$406,800.00	\$552,000.00	N/A	\$150,000.00	N/A
Total for all systems	\$1,092,060.00	\$1,163,700.00	N/A	\$154,444.87	N/A

Components

Actual Information Description	File Name	
Minor tower reinforcement /modifications	Component Description: Amount:	Tower Modification \$142,500.00
Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study	Component Description: Amount:	Mapping Completion \$7,500.00
Load Study	Information not provided.	
Tall Tower (greater than 500')	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	\$69,980.00	\$66,250.00		\$4,444.87	
Progress and Transition Reports	\$4,000.00	\$4,000.00	Engineering consultant costs not otherwise listed.	N/A	N/A
RF Exposure Measurements	\$21,050.00	\$20,000.00	KET requires RFR study of this site with co- located broadcast facilities.	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
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	\$49.50	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$1,750.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$459.37	N/A
Prepare and or review reimbursement	\$2,630.00	\$2,500.00	N/A	\$0.00	N/A

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$2,186.00	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	N/A	N/A
Project management of the transition	\$12,640.00	\$12,000.00	KET Staff require outside services to manage the upgrades.	N/A	N/A
Sub-total	\$69,980.00	\$66,250.00	N/A	\$4,444.87	N/A
Total for all systems	\$1,092,060.00	\$1,163,700.00	N/A	\$154,444.87	N/A

Components

Actual Information Description	File Name	
Progress and Transition Reports	Information not provided.	
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.	
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	Component Description: Amount:	First Installment \$49.50

Prepare request for Special Temporary Authorization	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	First Installment \$1,750.00
Perform engineering study for new channel assignment and antenna development	Component Description:	Review of site documentation and antennas, facility planning \$459.37
Prepare and or review reimbursement form	Information not provided.	¢ 100101

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Sixth Installment \$389.50
	Component Description: Amount:	Second Attorney Fee \$839.00
	Component Description: Amount:	First Installment Attorney \$99.00
	Component Description: Amount:	Fourth Installment \$346.50
	Component Description: Amount:	Fifth Installment \$320.50
	Component Description: Amount:	Third Installment \$191.50
ASR modification (prepare FCC Form 854)	Information not provided.	
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	\$15,050.00	\$8,500.00		\$0.00	
Disposal Costs (for equipment and other waste, net of any salvage value)	\$0.00	\$0.00	KET estimate based on known costs. WKHA is located in an area difficult to access.	N/A	N/A
Equipment Storage	\$500.00	\$500.00	GBC estimate	N/A	N/A
Develop and air announcement of upcoming channel change	\$1,500.00	\$1,500.00	KET estimate for developing and airing announcement.	N/A	N/A
MVPD Notification of Channel Change	\$1,500.00	\$1,500.00	KET estimate to search for and notify all cable companies.	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$5,000.00	GBC estimate based on known quotations	N/A	N/A
Sub-total	\$15,050.00	\$8,500.00	N/A	\$0.00	N/A
Total for all systems	\$1,092,060.00	\$1,163,700.00	N/A	\$154,444.87	N/A

Components

Information not provided.

Cost Information	Grand Total					
		Predetermined Cost Estimate	Estimated Cost	Actual Cost		
	Total for all systems	\$1,092,060.00	\$1,163,700.00	\$154,444.87		

Reimbursem	enrestatus	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. 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.	
I declare, under penalty of perjury, that I am an authorized representative of the above- named applicant for the Authorization(s) specified above.	Shae Hopkins Executive Director 02/04/2019

Attachments
