



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **34204** | Service: **DTV** | Call **WCVN-TV** | Channel: **22 (UHF)** |
ID: | Sign:
File **0000026897**
Number:
FRN: **0001790583** | Date **10/03**
Submitted: **/2019**

Applicant Information

Applicant Name, Type, and Contact Information

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

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
Greg Best <i>Consulting Engineer</i> <i>Greg Best Consulting,</i> <i>Inc.</i>	Greg Best 16100 Outlook Avenue Stilwell, KS 66085 United States	+1 (816) 792- 2913	gbconsulting54@gmail. 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.	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
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	DHD20P1
	Year	2001
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	5 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?	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
Transmitter**

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	Yes
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	Yes
	Size	3 inches
	Length	50.0 feet
	Other Electrical Service	No

	Description	N/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Primary
Transmitter**

Other Transmitter Cost Not Listed

Information not provided.

Antennas

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

Primary Antenna

Existing Antenna Information

Section	Question	Response
Existing Antenna Description	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing 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	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)	53.5 kW

Manufacturer	
Model	TLP-16B (24)
Year	2001

Primary
Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	No
	Will antenna be located on or in close proximity to an antenna farm?	No
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	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)	39.9 kW
	Manufacturer	

Model	ATW17H3-ETO-22H
Year	2017
Justification for New Antenna	Primary antenna is not broadband or able to be tuned to a new channel. New top mount reduces overall repack cost. Please see Repack Plan Exhibit for details.

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel

	Feed Line Size	3 1/8 inches inches
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

**Primary
Antenna**

Other Antenna Cost Not Listed

Information not provided.

Transmission Line

Section	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

Primary
Transmission Line

Existing Transmission Line

Section	Question	Response
Existing Transmission Line Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	
	Type	Flexible Air
	Diameter	3 inches
	Other Diameter	N/A
	Segment Length	N/A
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	300 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	Purchase New
	Is this a request for upgraded equipment?	Yes
	Type	Rigid
	Diameter	3 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	370 feet per run
	Justification for New Transmission Line	Installation of new broadband line makes possible the operation of the current facility while the tower is rigged and the construction of the new facility is underway. Licensee has chosen to upgrade to 3" rigid T-Line.

Primary 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	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?	No
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1044039
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	39° 01' 51.0" N-
	Longitude (NAD83)	084° 30' 23.0" W-
	Overall Structure Height	312.33 feet
	Support Structure Height	297.57 feet
	Ground Elevation Above Mean Sea Level (AMSL)	828.40 feet
	Structure Type	TOWER - Free Standing or Guyed Structure

	Tower Owner	KENTUCKY AUTHORITY FOR EDUCATIONAL TELEVISION DBA = WCVN TV
	Date Constructed	01/01/1968

**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	N/A
Helicopter Services Required	Are helicopter services required?	No

**Primary
Tower**

Other Tower Expenses Not Listed

Name	Description
Crane Services	Crane was required to displace fiber cable that prevented antenna installation.
Load Study	Structural engineering tower load study is required to design tower reinforcements and rigging.

**Outside
Professional**

Section	Question	Response
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	No
	Quantity	N/A
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
Attorney and Other Outside Consulting Services	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes

	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	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	No
	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
Progress and Transition Reports	Engineering consultant costs not otherwise listed.

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	Yes
	Is Remediation needed?	Yes
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**

Other Expenses Not Listed

Name	Description
Internal Labor	FCC Reimbursement Clerk hired for repack reimbursement ONLY

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
Primary Transmitter Maxiva UAXTE-8	\$291,700.00	\$277,450.00		\$129,570.13	
3" Rigid Conduit and Wiring (Cost per foot)	\$2,600.00	\$2,450.00	N/A	N/A	N/A
UHF - Air Cooled Solid State Transmitter 4 - 6 kW	\$236,500.00	\$225,000.00	N/A	\$127,953.63	N/A
Service entrance 3 phase/800 amp/208 volt	\$14,400.00	\$13,700.00	N/A	\$1,616.50	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A
Sub-total	\$291,700.00	\$277,450.00	N/A	\$129,570.13	N/A
Total for all systems	\$1,040,100.00	\$1,256,412.29	N/A	\$705,032.48	N/A

Components

Actual Information Description	File Name
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.

UHF - Air Cooled Solid State Transmitter 4 - 6 kW	<table> <tr> <td data-bbox="707 91 1029 369">Component Description:</td><td data-bbox="1029 91 1428 369">transmitter, rf system, electrical system, installation & proof, freight</td></tr> <tr> <td data-bbox="707 369 1029 481">Amount:</td><td data-bbox="1029 369 1428 481">\$127,153.25</td></tr> <tr> <td data-bbox="707 481 1029 593">Component Description:</td><td data-bbox="1029 481 1428 593">Antenna & line spec</td></tr> <tr> <td data-bbox="707 593 1029 705">Amount:</td><td data-bbox="1029 593 1428 705">\$437.50</td></tr> <tr> <td data-bbox="707 705 1029 996">Component Description:</td><td data-bbox="1029 705 1428 996">eComm admin and support, distribution services at time of bidding - GatesAir, RFP-48- 19</td></tr> <tr> <td data-bbox="707 996 1029 1099">Amount:</td><td data-bbox="1029 996 1428 1099">\$362.88</td></tr> </table>	Component Description:	transmitter, rf system, electrical system, installation & proof, freight	Amount:	\$127,153.25	Component Description:	Antenna & line spec	Amount:	\$437.50	Component Description:	eComm admin and support, distribution services at time of bidding - GatesAir, RFP-48- 19	Amount:	\$362.88
Component Description:	transmitter, rf system, electrical system, installation & proof, freight												
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Component Description:	eComm admin and support, distribution services at time of bidding - GatesAir, RFP-48- 19												
Amount:	\$362.88												

<p>Service entrance 3 phase /800 amp/208 volt</p>	<table> <tr> <td data-bbox="722 174 1029 208">Component Description:</td><td data-bbox="1161 174 1366 286">KET transmitter building electrical upgrades</td></tr> <tr> <td data-bbox="722 297 831 331">Amount:</td><td data-bbox="1161 297 1260 331">\$120.00</td></tr> <tr> <td data-bbox="722 432 1029 465">Component Description:</td><td data-bbox="1161 432 1366 544">KET transmitter building electrical upgrade</td></tr> <tr> <td data-bbox="722 555 831 589">Amount:</td><td data-bbox="1161 555 1244 589">\$60.00</td></tr> <tr> <td data-bbox="722 689 1029 723">Component Description:</td><td data-bbox="1161 689 1366 801">KET Transmitter building electrical upgrade</td></tr> <tr> <td data-bbox="722 813 831 846">Amount:</td><td data-bbox="1161 813 1244 846">\$50.00</td></tr> <tr> <td data-bbox="722 947 1029 981">Component Description:</td><td data-bbox="1161 947 1366 1059">KET Transmitter building electrical upgrade</td></tr> <tr> <td data-bbox="722 1070 831 1104">Amount:</td><td data-bbox="1161 1070 1260 1104">\$730.00</td></tr> <tr> <td data-bbox="722 1205 1029 1238">Component Description:</td><td data-bbox="1161 1205 1366 1317">KET transmitter building electrical upgrade</td></tr> <tr> <td data-bbox="722 1328 831 1361">Amount:</td><td data-bbox="1161 1328 1260 1361">\$445.50</td></tr> <tr> <td data-bbox="722 1462 1029 1496">Component Description:</td><td data-bbox="1161 1462 1366 1574">KET Transmitter Building Electrical Upgrade</td></tr> <tr> <td data-bbox="722 1585 831 1619">Amount:</td><td data-bbox="1161 1585 1228 1619">\$6.00</td></tr> <tr> <td data-bbox="722 1720 1029 1753">Component Description:</td><td data-bbox="1161 1720 1366 1832">KET transmitter building electrical upgrade</td></tr> <tr> <td data-bbox="722 1843 831 1877">Amount:</td><td data-bbox="1161 1843 1260 1877">\$205.00</td></tr> </table>	Component Description:	KET transmitter building electrical upgrades	Amount:	\$120.00	Component Description:	KET transmitter building electrical upgrade	Amount:	\$60.00	Component Description:	KET Transmitter building electrical upgrade	Amount:	\$50.00	Component Description:	KET Transmitter building electrical upgrade	Amount:	\$730.00	Component Description:	KET transmitter building electrical upgrade	Amount:	\$445.50	Component Description:	KET Transmitter Building Electrical Upgrade	Amount:	\$6.00	Component Description:	KET transmitter building electrical upgrade	Amount:	\$205.00
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Amount:	\$6.00																												
Component Description:	KET transmitter building electrical upgrade																												
Amount:	\$205.00																												
<p>Switchgear - industrial 800 amp</p>	<p>Information not provided.</p>																												

**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
Primary Antenna ATW17H3- ETO-22H	\$303,830.00	\$254,900.00		\$125,035.25	
Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed)	\$7,600.00	\$7,400.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized	\$289,500.00	\$235,000.00	Cost estimate adjusted for reimbursement of horizontal- polarized antenna like the pre-repack primary antenna.	\$114,410.25	N/A

Sweep test of existing antenna	\$6,730.00	\$12,500.00	the third sweep was to confirm the performance of the existing transmission line, before it was disconnected from the current DTV antenna. This was included at every site where the existing DTV transmission line was reused to feed the new main antenna	\$10,625.00	N/A
Sub-total	\$303,830.00	\$254,900.00	N/A	\$125,035.25	N/A
Total for all systems	\$1,040,100.00	\$1,256,412.29	N/A	\$705,032.48	N/A

Components

Actual Information	
Description	File Name
Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed)	Information not provided.

<p>UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized</p>	<table> <tr> <td data-bbox="703 98 1023 315">Component Description:</td><td data-bbox="1023 98 1426 315">antenna (less vpol) and replacement lighting (50%)</td></tr> <tr> <td data-bbox="703 315 1023 427">Amount:</td><td data-bbox="1023 315 1426 427">\$67,120.00</td></tr> <tr> <td data-bbox="703 427 1023 645">Component Description:</td><td data-bbox="1023 427 1426 645">antenna (less vpol) and replacement lighting (35%)</td></tr> <tr> <td data-bbox="703 645 1023 757">Amount:</td><td data-bbox="1023 645 1426 757">\$46,984.00</td></tr> <tr> <td data-bbox="703 757 1023 1021">Component Description:</td><td data-bbox="1023 757 1426 1021">Antenna gain and TPO Evaluation and revision of specifications</td></tr> <tr> <td data-bbox="703 920 1023 1021">Amount:</td><td data-bbox="1023 920 1426 1021">\$306.25</td></tr> </table>	Component Description:	antenna (less vpol) and replacement lighting (50%)	Amount:	\$67,120.00	Component Description:	antenna (less vpol) and replacement lighting (35%)	Amount:	\$46,984.00	Component Description:	Antenna gain and TPO Evaluation and revision of specifications	Amount:	\$306.25
Component Description:	antenna (less vpol) and replacement lighting (50%)												
Amount:	\$67,120.00												
Component Description:	antenna (less vpol) and replacement lighting (35%)												
Amount:	\$46,984.00												
Component Description:	Antenna gain and TPO Evaluation and revision of specifications												
Amount:	\$306.25												
<p>Sweep test of existing antenna</p>	<table> <tr> <td data-bbox="703 1021 1023 1167">Component Description:</td><td data-bbox="1023 1021 1426 1167">system sweep (35%)</td></tr> <tr> <td data-bbox="703 1167 1023 1279">Amount:</td><td data-bbox="1023 1167 1426 1279">\$4,375.00</td></tr> <tr> <td data-bbox="703 1279 1023 1391">Component Description:</td><td data-bbox="1023 1279 1426 1391">system sweep (50%)</td></tr> <tr> <td data-bbox="703 1391 1023 1491">Amount:</td><td data-bbox="1023 1391 1426 1491">\$6,250.00</td></tr> </table>	Component Description:	system sweep (35%)	Amount:	\$4,375.00	Component Description:	system sweep (50%)	Amount:	\$6,250.00				
Component Description:	system sweep (35%)												
Amount:	\$4,375.00												
Component Description:	system sweep (50%)												
Amount:	\$6,250.00												

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
Primary Transmission Line	\$44,400.00	\$78,832.29		\$33,762.14	
Rigid Transmission Line - copper, 3 1 /8" broadband	\$44,400.00	\$78,832.29	See quotation from ERI based upon required work and supplemental information regarding transmission line upgrade costs. Cost includes T- Line and dryer. Licensee confirms it is responsible for upgrade cost.	\$33,762.14	N/A
Sub-total	\$44,400.00	\$78,832.29	N/A	\$33,762.14	N/A
Total for all systems	\$1,040,100.00	\$1,256,412.29	N/A	\$705,032.48	N/A

Components

Actual Information Description	File Name
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Rigid Transmission Line - copper, 3 1/8" broadband		
	Component Description:	transmission line (less additional cost of rigid) and air dryer (35%)
	Amount:	\$13,902.07
	Component Description:	transmission line (less additional cost for rigid) and air dryer (50%)
	Amount:	\$19,860.07

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 TOWER	\$308,980.00	\$563,980.00		\$402,237.35	
Load Study	<i>\$12,000.00</i>	\$12,000.00	Structural engineering tower load study is required to design tower reinforcements and rigging.	\$9,550.00	N/A
Short Tower (less than 500')	\$84,200.00	\$345,000.00	KET obtained quotation of realistic scope of tower rigging work from reputable supplier. Please see attached Tower Work exhibit.	\$201,147.97	N/A
Crane Services	<i>\$28,480.00</i>	\$28,480.00	Crane was required to displace backhaul fiber line in order to allow antenna installation to occur.	\$28,480.00	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	\$17,400.00	N/A
Minor tower reinforcement /modifications	\$158,000.00	\$153,500.00	N/A	\$145,659.38	N/A
Sub-total	\$308,980.00	\$563,980.00	N/A	\$402,237.35	N/A
Total for all systems	\$1,040,100.00	\$1,256,412.29	N/A	\$705,032.48	N/A

Components

Actual Information	
Description	File Name

Load Study		
	Component Description:	Second Installment Geotechnical Studies
	Amount:	\$4,690.00
	Component Description:	First Installment Geotechnical Studies
	Amount:	\$2,310.00
	Component Description:	Second Installment Tower Structural Analysis
	Amount:	\$450.00
	Component Description:	First Installment Tower Structural Analysis
	Amount:	\$2,550.00

Short Tower (less than 500')	<div> <div>Component Description:</div> <div>installation services (50%)</div> </div> <div> <div>Amount:</div> <div>\$117,416.35</div> </div>
	<div> <div>Component Description:</div> <div>installation services (35%)</div> </div> <div> <div>Amount:</div> <div>\$82,191.45</div> </div>
	<div> <div>Component Description:</div> <div>3rd submission: eComm administration and support, distribution services at time of bidding -- Electronics Research, Inc. contract - RFP-96-19</div> </div> <div> <div>Amount:</div> <div>\$1,540.17</div> </div>
Crane Services	<div> <div>Component Description:</div> <div>crane services to swap top antenna (50%)</div> </div> <div> <div>Amount:</div> <div>\$14,240.00</div> </div> <div> <div>Component Description:</div> <div>crane services to swap top antenna (remaining 50%)</div> </div> <div> <div>Amount:</div> <div>\$14,240.00</div> </div>

Tower mapping for an undocumented/poorly documented tower and preparation of documentation necessary for tower load study

Component Description: First Installment
Tower Mapping
Amount: \$1,023.00

Component Description: First Installment
Foundation
Mapping
Amount: \$3,500.00

Component Description: mapping complete
Amount: \$7,500.00

Component Description: Second Installment
Tower Mapping
Amount: \$2,077.00

Component Description: First Installment
Tower Inspections
Amount: \$1,189.00

Component Description: Second Installment
Tower Inspections
Amount: \$2,111.00

Minor tower reinforcement /modifications		
	Component Description:	Second Installment
	Amount:	Tower Modification \$2,475.00
	Component Description:	First Installment
	Amount:	Tower Modification \$4,500.00
	Component Description:	tower mod
	Amount:	\$142,500.00
	Component Description:	eComm administration and support, distribution services at time of bidding -- Allstate Tower contract RFB-198-18
	Amount:	\$46.88
	Component Description:	eComm administration and support, distribution services at time of bidding -- Allstate Tower contract
	Amount:	\$637.50

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	\$43,200.00	\$41,250.00		\$11,287.33	
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	\$1,951.50	N/A
Progress and Transition Reports	<i>\$4,000.00</i>	\$4,000.00	Engineering consultant costs not otherwise listed.	\$787.50	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	\$493.93	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$1,235.00	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	\$2,712.50	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$721.87	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$1,487.50	N/A
Project management of the transition	\$12,640.00	\$12,000.00	KET Staff require outside services to manage the upgrades.	\$1,416.28	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	\$481.25	N/A
Sub-total	\$43,200.00	\$41,250.00	N/A	\$11,287.33	N/A
Total for all systems	\$1,040,100.00	\$1,256,412.29	N/A	\$705,032.48	N/A

Components

Actual Information**Description****File Name**

Attorney Fees -Prepare
and File FCC Form 2100
(main), License to Cover
Application

Component Description:

prepare chart re:
WCVN's repack
dependencies and
linked station set

Amount:

\$105.00

Component Description:

reminder and
research re:
quarterly repack
report and
progress reports

Amount:

\$134.00

Component Description:

repack issues re:
reimbursement
process; engaging
a project manager;
email re: same

Amount:

\$198.00

Component Description:

email reminder re:
repack progress
report; prepare
summary and
email re:
dependencies

Amount:

\$70.00

Component Description:

email re: FCC
shutdown, repack
filings, other repack
related work during
shutdown; work on
MVPD notifications
and obligations

Amount:

\$544.50

Component Description:	work on transition timing and other issues for repack
Amount:	\$148.50

Component Description:	Second Installment Attorney Fees 2100
Amount:	\$320.50

Component Description:	public notice; repack & coordination of linked station for testing and sequence of transitioning stations
Amount:	\$134.00

Component Description:	Environmental review
Amount:	\$49.50

Component Description:	First Installment Attorney Fees 2100
Amount:	\$49.50

Component Description:	work on review and analysis of RFP for repack reimbursement assistance
Amount:	\$198.00

Progress and Transition Reports	Component Description:	quarterly progress report
	Amount:	\$437.50
	Component Description:	quarterly progress report
	Amount:	\$350.00
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Component Description:	notice of proposed tower height increase in newspaper & online
	Amount:	\$143.93
	Component Description:	FAA Inquiry
	Amount:	\$350.00
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description:	Second Installment Attorney Fees
	Amount:	\$839.00
	Component Description:	Third Installment Attorney Fees
	Amount:	\$99.00
	Component Description:	First Installment Attorney Fees
	Amount:	\$99.00
	Component Description:	Fourth Installment Attorney Fees
	Amount:	\$198.00

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:	Hitachi and GatesAir response review, new antenna and line specs \$525.00
	Component Description: Amount:	new antenna and line specs \$87.50
	Component Description: Amount:	First Installment CP Prepare \$1,400.00
	Component Description: Amount:	Antenna and transmission line bid spec review and bid response review \$700.00

Perform engineering study for new channel assignment and antenna development	<table> <tr> <td data-bbox="702 174 1018 210">Component Description:</td><td data-bbox="1147 174 1374 244">Non-Reimbursable, \$0.00 requested</td></tr> <tr> <td data-bbox="702 255 815 291">Amount:</td><td data-bbox="1147 255 1197 291">N/A</td></tr> <tr> <td data-bbox="702 394 1018 430">Component Description:</td><td data-bbox="1147 394 1366 463">Third Installment Engineering Study</td></tr> <tr> <td data-bbox="702 474 815 510">Amount:</td><td data-bbox="1147 474 1267 510">\$2,100.00</td></tr> <tr> <td data-bbox="702 613 1018 649">Component Description:</td><td data-bbox="1147 613 1374 763">Review of site documentation and antennas, facility planning</td></tr> <tr> <td data-bbox="702 775 815 810">Amount:</td><td data-bbox="1147 775 1244 810">\$459.37</td></tr> <tr> <td data-bbox="702 913 1018 949">Component Description:</td><td data-bbox="1147 913 1366 983">First Installment Engineering Study</td></tr> <tr> <td data-bbox="702 994 815 1030">Amount:</td><td data-bbox="1147 994 1244 1030">\$459.37</td></tr> <tr> <td data-bbox="702 1133 1018 1169">Component Description:</td><td data-bbox="1147 1133 1355 1202">Linked station neighbor analysis</td></tr> <tr> <td data-bbox="702 1214 815 1249">Amount:</td><td data-bbox="1147 1214 1244 1249">\$262.50</td></tr> </table>	Component Description:	Non-Reimbursable, \$0.00 requested	Amount:	N/A	Component Description:	Third Installment Engineering Study	Amount:	\$2,100.00	Component Description:	Review of site documentation and antennas, facility planning	Amount:	\$459.37	Component Description:	First Installment Engineering Study	Amount:	\$459.37	Component Description:	Linked station neighbor analysis	Amount:	\$262.50
Component Description:	Non-Reimbursable, \$0.00 requested																				
Amount:	N/A																				
Component Description:	Third Installment Engineering Study																				
Amount:	\$2,100.00																				
Component Description:	Review of site documentation and antennas, facility planning																				
Amount:	\$459.37																				
Component Description:	First Installment Engineering Study																				
Amount:	\$459.37																				
Component Description:	Linked station neighbor analysis																				
Amount:	\$262.50																				
Prepare and or review reimbursement form	<table> <tr> <td data-bbox="702 1384 1018 1420">Component Description:</td><td data-bbox="1147 1384 1337 1453">First Installment 399 Form</td></tr> <tr> <td data-bbox="702 1464 815 1500">Amount:</td><td data-bbox="1147 1464 1267 1500">\$1,400.00</td></tr> <tr> <td data-bbox="702 1603 1018 1639">Component Description:</td><td data-bbox="1147 1603 1374 1673">Second Installment 399 Form</td></tr> <tr> <td data-bbox="702 1684 815 1720">Amount:</td><td data-bbox="1147 1684 1230 1720">\$87.50</td></tr> </table>	Component Description:	First Installment 399 Form	Amount:	\$1,400.00	Component Description:	Second Installment 399 Form	Amount:	\$87.50												
Component Description:	First Installment 399 Form																				
Amount:	\$1,400.00																				
Component Description:	Second Installment 399 Form																				
Amount:	\$87.50																				

Project management of the transition

Component Description: travel expenses
Amount: \$10.78

Component Description: project management
Amount: \$175.00

Component Description: travel expenses
Amount: \$294.50

Component Description: Travel expenses - invoice number highlighted and labeled
Amount: \$156.25

Component Description: project management
Amount: \$87.50

Component Description: project management tasks
Amount: \$87.50

Component Description: Travel expenses - INVOICE NUMBER noted on travel voucher
Amount: \$561.00

Component Description: project management
Amount: \$43.75

ASR modification (prepare FCC Form 854)	Component Description:	ASR mod app followup
	Amount:	\$131.25
	Component Description:	ASR Issue Resolution
	Amount:	\$350.00

Cost Information

Other Expenses

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$47,990.00	\$40,000.00		\$3,140.28	
MVPD Notification of Channel Change	<i>\$1,500.00</i>	\$1,500.00	KET estimate to search for and notify all cable companies.	\$1,118.75	N/A
Internal Labor	<i>\$2,000.00</i>	\$2,000.00	N/A	\$434.03	N/A
Develop and air announcement of upcoming channel change	<i>\$1,500.00</i>	\$1,500.00	KET estimate for developing and airing announcement.	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$2,000.00</i>	\$2,000.00	KET estimate based on known costs.	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$5,000.00	GBC estimate based on known quotations	\$1,587.50	N/A
AM Pattern Disturbance -- Remedy	\$21,050.00	\$20,000.00	N/A	N/A	N/A
AM Pattern Disturbance -- Impact study	\$7,890.00	\$7,500.00	N/A	N/A	N/A
Equipment Storage	<i>\$500.00</i>	\$500.00	GBC estimate	N/A	N/A
Sub-total	\$47,990.00	\$40,000.00	N/A	\$3,140.28	N/A

Total for all systems	\$1,040,100.00	\$1,256,412.29	N/A	\$705,032.48	N/A
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Components

Actual Information		
Description	File Name	
MVPD Notification of Channel Change	Component Description:	prepare letters to MVPDs, research and contact all MVPDs, prepare report for station
	Amount:	\$1,118.75

Internal Labor	Component Description: payroll expenses Amount: for internal labor \$57.54
	Component Description: payroll expenses Amount: for internal labor \$37.85
	Component Description: payroll expenses Amount: for internal labor \$37.55
	Component Description: payroll expenses Amount: for internal labor \$58.43
	Component Description: payroll expenses Amount: for internal labor \$71.75
	Component Description: payroll expenses Amount: for internal labor \$69.49
	Component Description: payroll expenses Amount: for internal labor \$66.91
	Component Description: payroll expenses Amount: for internal labor \$34.51
Develop and air announcement of upcoming channel change	Information not provided.

Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.
DTV Medical Facility Notification	<div> <div>Component Description:</div> <div>medical notification</div> </div> <div> <div>Amount:</div> <div>\$1,587.50</div> </div>
AM Pattern Disturbance -- Remedy	Information not provided.
AM Pattern Disturbance -- Impact study	Information not provided.
Equipment Storage	Information not provided.

**Cost
Information**

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$1,040,100.00	\$1,256,412.29	\$705,032.48

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>Shae Hopkins <i>Executive Director</i></p> <p>10/03/2019</p>

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		<ol style="list-style-type: none"> 1. The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct. 3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 	

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (full power and Class A stations) and/or otherwise modify a television station's facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

<p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Shae Hopkins <i>Executive Director</i></p> <p>10/03/2019</p>

Attachments