Approved by OMB (Office of Management and Budget) 3060-1178

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility ID: **14040** | Service: **DTV** | Call Sign: **KRMA-TV** | Channel: **33 (UHF)**

File Number: **0000027982**

FRN: **0001615582** | Date Submitted: **04/18/2019**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
ROCKY MOUNTAIN PUBLIC MEDIA, INC. Doing Business As: ROCKY MOUNTAIN PUBLIC MEDIA, INC.	DANNA LUO 1089 BANNOCK STREET DENVER, CO 80204 United States	+1 (303) 892-6666	dannaluo@rmpbs.org	Not-for-Profit

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
James Schoedler *KRMA Repack Project Manager* *JB Schoedler Associates LLC*	1069 S Downing Street Denver, CO 80209 United States	+1 (303) 725-9043	jschoedler@usa.net

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	To transition from CH 18 to CH 33 KRMA must replace its main antenna, transmission line, RF switching, main and backup transmitters. An interim antenna on the new channel will be used during replacement of the main antenna.

Transmitters

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

Auxiliary Transmitter

Add Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Low Power Backup
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	Innovator LX
	Year	2009
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power Capacity	3 kW

Auxiliary Transmitter

New Transmitter Costs

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	UAXTE-6R44
	Transmitter Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	3.6 kW
	Justification for New Transmitter	KRMA originally requested funds to retune the existing Axcera transmitter, but after submitting sample rf modules to UBS /Axcera for re-tuning, the company has advised that due to the age and design of the modules the re-tuning will not be possible.

Auxiliary Transmitter

Other Transmitter Costs

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

Auxiliary Transmitter

Other Transmitter Cost Not Listed

Information not provided.

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	Power CD
	Year	2009
	Type	Inductive Output Tube
	IOT Power Type	Single
	Power Capacity	30 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	ULXTE-50
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	31.7 kW
	Justification for New Transmitter	Refer to attached Transition Plan exhibit.

Primary Transmitter

Other Transmitter Costs

Section	Question	Response
Electrical Service	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	Yes
	Power	150 kVA
	Rigid Conduit and Wiring	Yes
	Size	1 inches
	Length	1.0 feet
	Other Electrical Service	Yes
	Description	Disconnection of existing.

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 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 Transmitter

Other Transmitter Cost Not Listed

Name	Description
Site Survey	Engineering visit to specify transmitter installation.

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?	Yes
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power)	1000.0 kW

Manufacturer	
Model	TFU-32DSC /VP-R C190
Year	2009

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?	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?	Yes
New Antenna Manufacturer and Types	Class	Full Power
	Mounting	Side 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)	1000.0 kW
	Manufacturer	

	Model	TFU-38DSC /VP-R C190
	Year	2018
	Justification for New Antenna	Existing antenna does not cover new channel

Primary Antenna

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	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	6 1/8 inches inches
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?	Yes
Sweep Test	Do you require the sweep testing of transmission line and antenna?	No

Primary Antenna

Other Antenna Cost Not Listed

Name	Description
Installation	Removal of old antenna and installation of new.
Transportation to site	Transportation to site on 4-wheel drive road.
Freight	Shipping from manufacturer to offload point in Denver.

Interim Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New Antenna Manufacturer and Type	Class	Class A
	Mounting	Side 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)	115.0 kW
	Manufacturer	
	Model	SFN-2030-5645-16
	Year	2019

	Justification for New Antenna	An existing RF Technologies CH 18 antenna planned for interim use was found to have a burned center conductor and shorting ring. It is not repairable and therefore a new interim antenna is needed to stay on the air during main antenna replacement.

Interim Antenna

Other Antenna Costs

Section	Question	Response
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 an antenna?	No
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Interim Antenna

Other Antenna Cost Not Listed

Name	Description
Coaxial Switch for Interim Antenna	Dielectric 3 Port Coaxial Switch and Elbows needed to connect new interim antenna with transmitter RF system.

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	Rigid
	Diameter	8 3/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	379 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?	No
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	19 3/4 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	379 feet per run
	Justification for New Transmission Line	Existing transmission line is not suitable for new channel

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	Leased
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	Yes
	Is tower documented for structural analysis?	Yes
	Is tower compliant with Rev G?	Yes
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1023484
Coordinates (NAD83 (North American Datum of 1983))	Latitude (NAD83)	39° 40' 17.4" N-
	Longitude (NAD83)	105° 13' 08.0" W-
	Overall Structure Height	273.95 feet
	Support Structure Height	271.98 feet
	Ground Elevation Above Mean Sea Level (AMSL)	7685.60 feet

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Bear Creek Development Corporation
Date Constructed	11/08/1988

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
83535	KVOD	FM
57219	KCEC	DTV

Other Types of Users

Users
Cellular
2-way radio

Primary Tower

Tower Modification Costs

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	Study needed for documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	No 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

Information not provided.

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	500
	Explanation	Overall project management and coordination of procurement process.
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 Services	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes

	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	Negotiation of Lease and other Matter for Shared Locations	Yes
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	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

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Information not provided.

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	No
	Is Remediation needed?	No
Facility Expenses	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
Permit and Filing Costs	Local Zoning	Yes
	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?	Yes
	Does this relocation require Equipment Storage?	No
	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
Electrical Design Engineering	Electrical requirements of new main and auxiliary transmitters require extensive electrical rework. Contractor requested drawings and panel schedules from an electrical designer.
Electrical Installation for Main and Backup Transmitters	Costs to install new 150 kVA transformer and power panels for new transmitters; electrical wiring of transmitters, pumps, and loads.
Interim CH 33 Antenna Installation	Costs for installation of new CH 33 interim antenna required to meet the Phase 2 deadline.
Interim Facility Transmission Line Upgrade	Larger transmission line is needed to increase ERP of interim facility to address lost coverage during transition.
Interim and Final Transmission Line Components	Transmission line components for interim and final configuration not covered elsewhere.
Replacement Coaxial Switching System	Dielectric has advised that re-use of the existing waveguide switching system is not practical. A replacement coaxial system is required instead.
Temporary Antenna Installation	A temporary antenna installation on the tower ice bridge is required during installation of the new antenna.
Glycol Recycling	Cost of recycling used glycol from decommissioned main transmitter.

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 ULXTE-50	**$927,232.34**	**$925,982.34**		**$892,182.34**	
UHF - Liquid Cooled Solid State Transmitter 31.7 kW	***$892,182.34***	$892,182.34	Estimated cost revised to reflect 2 change orders to original quote and to reflect actual shipping cost. Refer to GatesAir Invoice US0323277 for details. Estimate also increased to reflect cost of de-ionized water needed for cooling system.	$892,182.34	Estimated cost for ULXTE-50 Transmitter System revised on 4/17/2019 to reflect 2 change orders to original quote and to reflect actual shipping cost.
Site Survey	***$6,500.00***	$6,500.00	Site survey is required to determine plan for replacement transmitter installation.	N/A	N/A

Other Electrical Service: Disconnection of existing.	***$1,500.00***	$1,500.00	N/A	N/A	N/A
1" Rigid Conduit and Wiring	***$1,500.00***	$1,500.00	N/A	N/A	N/A
Transformer 3 phase/480v - 150 KVA	$25,550.00	$24,300.00	N/A	N/A	N/A
Auxiliary Transmitter UAXTE-6R44	**$169,061.70**	**$169,061.70**		**$142,599.66**	
UHF - Air Cooled Solid State Transmitter 3.6 kW	***$169,061.70***	$169,061.70	See GatesAir quote Q-63424 uploaded with this application.	$142,599.66	N/A
Sub-total	$1,096,294.04	$1,095,044.04	N/A	$1,034,782.00	N/A
Total for all systems	$2,145,225.34	$1,934,087.34	N/A	$1,619,287.21	N/A

Components

Actual Information Description	File Name

UHF - Liquid Cooled Solid State Transmitter 31.7 kW	**Component Description:** Invoice for payment due after transmitter installation is complete. **Amount:** $120,294.89 **Component Description:** Payment due after shipment of equipment. **Amount:** $125,862.28 **Component Description:** Deionized water provided for primary transmitter installation. **Amount:** $461.30 **Component Description:** 25% Payment due 8/30/18 for main transmitter **Amount:** $214,271.29 **Component Description:** Invoice #2 for Main Transmitter - 25% installment due 5/30/2018 **Amount:** $214,271.29 **Component Description:** Initial payment with order for ULXTE-50 Transmitter System **Amount:** $217,021.29
Site Survey	Information not provided.

Other Electrical Service: Disconnection of existing.	Information not provided.	
1" Rigid Conduit and Wiring	Information not provided.	
Transformer 3 phase/480v - 150 KVA	Information not provided.	
UHF - Air Cooled Solid State Transmitter 3.6 kW	**Component Description:** **Amount:**	1/3 Down Payment for Auxiliary/Backup Transmitter $55,620.57
	Component Description: **Amount:**	Invoice for payment due after shipment of equipment. $31,358.52
	Component Description: **Amount:**	1/3 payment due prior to shipping for Auxiliary /Backup Transmitter $55,620.57

Cost Information

Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna SFN-2030-5645-16	**$75,507.00**	**$75,327.00**		**$72,909.50**	
Coaxial Switch for Interim Antenna	***$23,132.00***	$23,132.00	A coaxial switch is required to feed interim antenna from transmitter RF system. See Proposal 180177SM from Dielectric for costs.	$23,132.00	N/A
Sweep test of existing antenna	$6,730.00	$6,550.00	N/A	$4,132.50	N/A
UHF - Lower Power, Side Mount, Class A, basic slot antenna, 115 kW input, directional,, elliptically or circularly polarized	***$45,645.00***	$45,645.00	Updated estimated cost includes shipping billed on invoice C2186-B.	$45,645.00	N/A
Primary Antenna TFU-38DSC/VP-R C190	**$486,779.00**	**$446,069.00**		**$356,719.00**	

Freight	***$9,500.00***	$9,500.00	Freight Cost to Denver, Colorado provided in Dielectric email dated 6/22/17 (attached to Form).	N/A	N/A
Transportation to site	***$0.00***	$0.00	Included in antenna installation cost.	N/A	N/A
Installation	***$79,850.00***	$79,850.00	Installation cost determined by Rex Industries proposal 217-301 attached to Form 399.	N/A	N/A
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	$5,260.00	$0.00	This cost is now included in antenna base cost.	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	$12,300.00	$0.00	This cost is now included in antenna base cost.	N/A	N/A

UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	***$356,719.00***	$356,719.00	Several line items are now consolidated in this line, including antenna, scatter analysis, side-mount brackets, elbow complex and transmission line. This is the current total of the Dielectric sales order after change orders, not including shipping.	$356,719.00	Actual costs are reported on the line correspondin to the antenna as the invoices from the manufacture are not broken dowr according to the categorie listed in the estimated costs columr
Side mount brackets for high power antennas (if not included in antenna base cost)	$23,150.00	$0.00	This cost is now included in antenna base cost.	N/A	N/A
Sub-total	$562,286.00	$521,396.00	N/A	$429,628.50	N/A
Total for all systems	$2,145,225.34	$1,934,087.34	N/A	$1,619,287.21	N/A

Components

Actual Information Description	File Name

Coaxial Switch for Interim Antenna	**Component Description:** **Amount:** **Component Description:** **Amount:**	50% payment due with order. $11,566.00 50% due prior to shipment. $11,566.00
Sweep test of existing antenna	**Component Description:** **Amount:**	Sweep testing of existing antenna intended for interim use during main antenna replacement. $4,132.50
UHF - Lower Power, Side Mount, Class A, basic slot antenna, 115 kW input, directional,, elliptically or circularly polarized	**Component Description:** **Amount:** **Component Description:** **Amount:**	50% payment with order $22,397.50 Final payment including shipping for interim CH 33 antenna. $23,247.50
Freight	Information not provided.	
Transportation to site	Information not provided.	
Installation	Information not provided.	
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.	
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.	

UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	**Component Description:** **Amount:**	Invoice for current balance due. Shipping and site visit to be invoiced later. $32,484.73
	Component Description: **Amount:**	Invoice for 45% due prior to shipment; invoice includes adjustments for two change orders, also attached. This is a corrected invoice to accurately describe the side-mount antenna. $165,171.15
	Component Description: **Amount:**	Initial payment with order for TFU-38DSC/VP-R high power antenna. $159,063.12
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	

Cost Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmission Line	**$76,558.00**	**$0.00**		**$0.00**	
Rigid Transmission Line - copper, 6 1/8"	$76,558.00	$0.00	This cost is now included in antenna base cost as Dielectric provided a single sales order and invoices for antenna and transmission line.	N/A	N/A
Sub-total	$76,558.00	$0.00	N/A	$0.00	N/A
Total for all systems	$2,145,225.34	$1,934,087.34	N/A	$1,619,287.21	N/A

Components

Information not provided.

Cost Information

Tower Equipment and Rigging Costs

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	**$96,800.00**	**$12,000.00**		**$6,939.90**	
Structural engineering tower load study for well documented tower	$12,600.00	$12,000.00	N/A	$6,939.90	N/A
Short Tower (less than 500')	$84,200.00	$0.00	N/A	$0.00	N/A
Sub-total	$96,800.00	$12,000.00	N/A	$6,939.90	N/A
Total for all systems	$2,145,225.34	$1,934,087.34	N/A	$1,619,287.21	N/A

Components

Actual Information Description	File Name	
Structural engineering tower load study for well documented tower	**Component Description:**	Tower Analysis - Main Tower - Labor for December 2017 - Includes PO #22547
	Amount:	$1,064.90

Component Description:	Structural analysis for mounting the new Micronetixx CH 33 interim antenna on existing ice bridge.
Amount:	$1,100.00
Component Description:	Invoice for structural study of an Andrew ALP8 interim antenna to be mounted on ice bridge of tower.
Amount:	$1,000.00
Component Description:	Tower Analysis - Main Tower - January Labor - Includes PO #22547
Amount:	$3,275.00
Component Description:	A second interim antenna study was required as the first antenna studied did not pass RFR requirements. Please see memo attached to invoice for cost explanation.
Amount:	$500.00

	Component Description: **Amount:**	Invoice for structural study for mounting interim antenna during main antenna replacement. $1,000.00
Short Tower (less than 500')	Information not provided.	

Cost Information

Outside Professional Services

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	**$132,340.00**	**$125,250.00**		**$32,765.75**	
RF Exposure Measurements	$21,050.00	$20,000.00	N/A	$4,845.00	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 - Negotiation of lease and other matters for shared locations	$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	$4,952.00	N/A
Prepare request for Special Temporary Authorization	$2,050.00	$1,500.00	N/A	$806.25	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	$600.00	N/A
Perform engineering study for new channel assignment and antenna development	$7,360.00	$7,000.00	N/A	$0.00	N/A
Project management of the transition	$79,000.00	$75,000.00	N/A	$21,562.50	N/A
Prepare and or review reimbursement form	$2,630.00	$2,500.00	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
Sub-total	$132,340.00	$125,250.00	N/A	$32,765.75	N/A
Total for all systems	$2,145,225.34	$1,934,087.34	N/A	$1,619,287.21	N/A

Components

Actual Information Description	File Name	
RF Exposure Measurements	**Component Description:** **Amount:**	Perform RF exposure study of KRMA transmitter site and submit study with Jefferson County telecom permit application. $4,845.00
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.	
Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.	
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	**Component Description:** **Amount:**	Legal Fees $139.00
	Component Description: **Amount:**	Legal Fees $2,418.00
	Component Description: **Amount:**	Legal Fees $600.00
	Component Description: **Amount:**	Legal Fees $878.00
	Component Description: **Amount:**	Legal Fees $917.00

Prepare request for Special Temporary Authorization	**Component Description:** **Amount:**	Preparation of 2nd STA for KRMA interim operation. This application was for CH 33 and was approved by the FCC on 3/6 /2019. $450.00
	Component Description: **Amount:**	Preparation of STA for temporary operation during main antenna replacement $356.25
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:**	Engineering Fees for Preparation of CP Application - line items for 6/26 and 6/27/17. $450.00
	Component Description: **Amount:**	Engineering Fees for CP Application - line item for 7/6 only $150.00
Perform engineering study for new channel assignment and antenna development	Information not provided.	
Project management of the transition		

Component Description:	Project Management Fees - May 2017
Amount:	$1,125.00
Component Description:	Legal advice related to management of project - line item from 2/6/2018 only.
Amount:	$50.00
Component Description:	Project Management Fees for January 2019
Amount:	$1,575.00
Component Description:	Project Management Fees - June 2018
Amount:	$975.00
Component Description:	Repack Project Management Fees - January 2018
Amount:	$731.25
Component Description:	Project Management Fees - April 2018
Amount:	$225.00
Component Description:	Project Management Fees - July-August 2018
Amount:	$1,575.00

Component Description:	Repack Project Management Fees - September 2018
Amount:	$975.00
Component Description:	Project Management Fees - November 2018
Amount:	$2,793.75
Component Description:	Project Management Fees - June 2017 (includes all line items except 6/26 and 6/27).
Amount:	$1,275.00
Component Description:	Legal Advice related to management of project
Amount:	$50.00
Component Description:	Project Management Fees for February 2019
Amount:	$975.00
Component Description:	Project Management Fees - December 2018
Amount:	$1,275.00
Component Description:	Preparation of STA for temporary operation during main antenna replacement.
Amount:	$356.25

Component Description:	Legal advice related to management of project - line items for 2/6 and 2/14 only
Amount:	$300.00
Component Description:	Legal Advice related to management of project - January 2018
Amount:	$800.00
Component Description:	Project Management Fees - November 2017
Amount:	$300.00
Component Description:	Legal advice related to management of project - December 2017
Amount:	$50.00
Component Description:	Legal advice related to management of project
Amount:	$150.00
Component Description:	Repack Project Management Fees - October 2018
Amount:	$1,218.75

Component Description:	Project Management Fees for the month of December 2017
Amount:	$937.50
Component Description:	Project Management Fees - May 2018
Amount:	$1,218.75
Component Description:	Project Management Fees - February 2018
Amount:	$506.25
Component Description:	Project Management Fees - August 2017
Amount:	$150.00
Component Description:	Project Management Fees for April 2017.
Amount:	$600.00
Component Description:	Project Management Fees - July 2017 (all line items except 7/6 /17)
Amount:	$656.25
Component Description:	Project Management Fees - March 2018
Amount:	$450.00

	Component Description: **Amount:**	Project Management Fees - September 2017 $450.00
	Component Description: **Amount:**	Project Management Fees - October 2017 $225.00
Prepare and or review reimbursement form	Information not provided.	
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.	

Cost Information

Other Expenses

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Co Justificati
Other Expenses	**$180,947.30**	**$180,397.30**		**$115,171.06**	
Glycol Recycling	***$66.00***	$66.00	Cost estimate based on actual invoice 8418 from G2 Solutions.	$66.00	N/A
Interim and Final Transmission Line Components	***$5,431.84***	$5,431.84	Transmission line components required for interim and final installations, not included in other proposals. Quotes obtained and items purchased as required. Each invoice will contain a justification. Revised estimated cost due to addition of shipping.	$5,431.84	N/A

Interim Facility Transmission Line Upgrade	***$7,877.03***	$7,877.03	Please refer to justification attached to RFSTX Quotation 6347-01. Estimated cost increased by $1,254.00 to include freight, handling and insurance.	$7,877.03	N/A
Electrical Design Engineering	***$3,000.00***	$3,000.00	Cost estimate based on verbal quote from Green Mountain Electrical Consultants.	$2,800.00	N/A
MVPD Notification of Channel Change	***$2,500.00***	$2,500.00	N/A	$1,963.00	N/A
Develop and air announcement of upcoming channel change	***$1,500.00***	$1,500.00	N/A	N/A	N/A

Equipment Delivery and Handling Charges	***$12,597.40***	$12,597.40	Towing company 4WD transport of transmitters to site. Forklift rental to lift transmitters to 2nd floor entrance of transmitter building. See individual invoices for details. Revised estimated cost includes insurance rider for equipment in transit.	$12,597.40	Original c estimate v based c transporta direct to s actual cc also inclu tempora offloadir and stora due to ba weather t delaye access to mountain site.
Disposal Costs (for equipment and other waste, net of any salvage value)	***$48,495.00***	$48,495.00	N/A	N/A	N/A
Local Zoning	***$5,000.00***	$5,000.00	N/A	N/A	N/A
DTV Medical Facility Notification	$11,550.00	$11,000.00	N/A	$2,987.00	N/A

Replacement Coaxial Switching System	***$23,757.03***	$23,757.03	See Dielectric quote 180074ASM to replace an existing waveguide switching system (main and backup transmitter, antenna and load) that cannot be used on the new channel. Estimated cost increased to cover actual shipping charges.	$23,757.03	N/A
Electrical Installation for Main and Backup Transmitters	***$34,553.00***	$34,553.00	Estimate from Greiner Electric LLC to implement electrical design for replacement main and backup transmitters; install new 150 kVA transformer, power panels, and wiring to transmitters, pump modules, switches, and loads. Includes permit and inspection.	$33,071.76	N/A

Temporary Antenna Installation	***$14,870.00***	$14,870.00	RMPBS planned to use a used RF Technologies SFN CH 18 antenna during main antenna replacement. This antenna was found to be defective. It required troubleshooting in place and de-installation at extra cost. See Rex Industries Estimate 217-334 for details.	$14,870.00	N/A
Interim CH 33 Antenna Installation	***$9,750.00***	$9,750.00	Refer to cost estimate included with Rex Industries Invoice 7423 attached.	$9,750.00	N/A
Sub-total	$180,947.30	$180,397.30	N/A	$115,171.06	N/A
Total for all systems	$2,145,225.34	$1,934,087.34	N/A	$1,619,287.21	N/A

Components

Actual Information Description	File Name	
Glycol Recycling	**Component Description:**	Invoice and credit card receipt for used glycol recycling.
	Amount:	$66.00

Interim and Final Transmission Line Components	**Component Description:**	1-5/8" flange gas barrier for interim antenna transmission line.
	Amount:	$274.05
	Component Description:	A 6-1/8" directional coupler to provide test monitoring of the main RF signal was not included in the GatesAir or Dielectric proposals. This is an essential item that was ordered separately.
	Amount:	$2,624.58
	Component Description:	30 feet of 1-5/8" flexible transmission line with connectors and adapter to connect new backup transmitter to interim antenna while main transmitter and antenna are replaced.
	Amount:	$1,895.85
	Component Description:	3-1/8" to type N reducer required for sweep testing of interim antenna transmission line
	Amount:	$637.36

Interim Facility Transmission Line Upgrade	**Component Description:** **Amount:**	3" transmission line and connectors for interim CH 33 facility. $7,877.03
Electrical Design Engineering	**Component Description:** **Amount:**	Engineering of transmitter electrical facilities $2,800.00
MVPD Notification of Channel Change	**Component Description:** **Amount:**	DTVNotification Invoice INV-001908 - KRMA MVPD Notifications with Estimate. $1,963.00
Develop and air announcement of upcoming channel change	Information not provided.	

Equipment Delivery and Handling Charges	**Component Description:**	Heavy duty forklift was required to move transmitter equipment into 2nd floor entrance of transmitter building. Estimate obtained for one week rental. Due to weather delays rental had to be extended past 2 weeks (4 week rental).
	Amount:	$3,424.07
	Component Description:	Add trip transit coverage - delivery of transmitters to Mt. Morrison site.
	Amount:	$1,500.00
	Component Description:	Transportation of transmitters to Mt. Morrison via 4WD flatbed vehicle. Revised invoice includes timesheet.
	Amount:	$7,635.00
	Component Description:	Fueling charge for forklift rental.
	Amount:	$38.33
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
Local Zoning	Information not provided.	

DTV Medical Facility Notification	**Component Description:** **Amount:**	DTVNotification Invoice INV-001909 - KRMA Medical Notifications with Estimate $2,987.00
Replacement Coaxial Switching System	**Component Description:** **Amount:**	Invoice for completed shipment of budgeted components. $23,757.03
Electrical Installation for Main and Backup Transmitters	**Component Description:** **Amount:**	Final invoice for electrical work to install replacement transmitters. $33,071.76
Temporary Antenna Installation	**Component Description:** **Amount:**	Mounting and de-mounting of interim CH 18 antenna including in-place troubleshooting of high VSWR. $14,870.00
Interim CH 33 Antenna Installation	**Component Description:** **Amount:**	Installation of new CH 33 interim antenna required to meet Phase 2 deadline for transition to new channel. $9,750.00

Cost Information

Grand Total

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	$2,145,225.34	$1,934,087.34	$1,619,287.21

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	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.	
	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.

	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.	**DANNA LUO** *CHIEF FINANCIAL OFFICER* 04/18/2019

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).	
	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.

	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.	
	I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.	**DANNA LUO** *CHIEF FINANCIAL OFFICER* 04/18/2019

Attachments