

(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

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

ID:

File 0000027982

Number:

FRN: **0001615582** Date 05/19

> Submitted: /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.	DOUG HOUSTON 1089 BANNOCK STREET DENVER, CO 80204 United States	+1 (303) 892- 6666	doughouston@rmpbs. org	Not-for- Profit

# Reimbursement Contact Name and Information Reimbursement Contact 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**

rs	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	
Manufacturer and Type	Model	Innovator LX
	Year	2009
	Туре	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
	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

# Auxiliary

**Other Transmitter Cost Not Listed** 

**Transmitter** 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	
Manufacturer and Type	Model	Power CD
	Year	2009
	Туре	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?  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?  Size  N/A  Channel 14 Costs  Is an RF Consulting Engineer needed?  Is additional field engineering time needed?  N/A			
Size N/A  Other Size N/A  Transmitter Building Addition/Modification or Leasehold Improvement Size N/A  Channel 14 Costs Is an RF Consulting Engineer needed? N/A  Is a channel 14 Mask Filer needed? N/A	HVAC Service	·	No
Other Size  N/A  Transmitter Building Addition/Modification or Leasehold Improvement  Size  No  No  Addition, modification, other leashold improvement?  Size  N/A  Channel 14 Costs  Is an RF Consulting Engineer needed?  N/A  Is a channel 14 Mask Filer needed?  N/A		Туре	N/A
Transmitter Building Addition/Modification or Leasehold Improvement  Size  No  No  Addition/Modification or Leasehold Improvement  Size  N/A  Channel 14 Costs  Is an RF Consulting Engineer needed?  N/A  Is a channel 14 Mask Filer needed?  N/A		Size	N/A
Addition/Modification or Leasehold Improvement addition, modification, other leashold improvement?  Size N/A  Channel 14 Costs Is an RF Consulting Engineer needed? N/A  Is a channel 14 Mask Filer needed? N/A		Other Size	N/A
Channel 14 Costs  Is an RF Consulting Engineer needed?  Is a channel 14 Mask Filer needed?  N/A	Addition/Modification or	addition, modification, other leashold	No
Is a channel 14 Mask Filer needed?  N/A		Size	N/A
	Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
Is additional field engineering time needed? N/A		Is a channel 14 Mask Filer needed?	N/A
16 dddillondi fiold originooring time flooded.		Is additional field engineering time needed?	N/A
Number of Days 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

#### **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
	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)	1000.0 kW

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

#### **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	Class	Full Power
Manufacturer and Types	Mounting	Side 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)	1000.0 kW
	Manufacturer	
		1

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

#### **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?	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

#### **Other Antenna Cost Not Listed**

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

#### 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	Class	Class A
Manufacturer and Type	Mounting	Side 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)	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 <sup>Seffien</sup>	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

# Primary Transmission Line

#### **Existing Transmission Line**

on 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	
	Туре	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 Transmi

#### **New Transmission Line**

ansmissio	n Line Section	Question	Response
New Transmis	New Transmission Line Costs	Use	Primary (Main)
		Description of Use	N/A
		Change Type	Purchase New
		Is this a request for upgraded equipment?	No
		Туре	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

Other Transmission Line Expenses Not Listed

Transmission loine tion 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	Do you have a tower registration number?	Yes
Registration	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 fee

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
57219	KCEC	DTV
83535	KVOD	FM

#### 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

Section	Question	Response
Services Costs 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
Other Professional Services Expenses Not Listed
Professional Services ©qstsided.

# 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 deionized 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.
Transformer 3 phase/480v - 150 KVA	\$25,550.00	\$24,300.00	N/A	N/A	N/A
1" Rigid Conduit and Wiring	\$1,500.00	\$1,500.00	N/A	N/A	N/A

Other Electrical Service: Disconnection of existing.	\$1,500.00	\$1,500.00	N/A	N/A	N/A
Site Survey	\$6,500.00	\$6,500.00	Site survey is required to determine plan for replacement transmitter installation.	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	\$1,637,562.06	N/A

#### Components

<b>Actual Information</b>	
Description	File Name

UHF - Liquid Cooled Solid State Transmitter 31.7 kW

Component Description: Invoice #2 for

Main Transmitter - 25% installment due 5/30/2018

**Amount:** \$214,271.29

Component Description: Payment due

after shipment of

equipment.

**Amount:** \$125,862.28

Component Description: Initial payment

with order for ULXTE-50 Transmitter System

**Amount:** \$217,021.29

Component Description: Invoice for

payment due after

transmitter installation is complete.

**Amount:** \$120,294.89

Component Description: Deionized water

provided for primary transmitter installation. \$461.30

**Amount:** \$461.30

Component Description: 25% Payment

due 8/30/18 for main transmitter

**Amount:** \$214,271.29

Transformer 3 phase/480v - 150 KVA

Information not provided.

1" Rigid Conduit and Wiring	Information not provided.	
Other Electrical Service: Disconnection of existing.	Information not provided.	
Site Survey	Information not provided.	
UHF - Air Cooled Solid State Transmitter 3.6 kW	Component Description:	1/3 Down Payment for Auxiliary/Backup
	Amount:	Transmitter \$55,620.57
	Component Description:	Invoice for payment due afte shipment of
	Amount:	equipment. \$31,358.52
	Component Description:	1/3 payment due prior to shipping for Auxiliary
	Amount:	/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	Cost Justification	Actual Cost	Actual Cos Justification
Interim Antenna SFN- 2030-5645-16	\$75,507.00	\$75,327.00		\$72,909.50	
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
Sweep test of existing antenna	\$6,730.00	\$6,550.00	N/A	\$4,132.50	N/A
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
Primary Antenna TFU- 38DSC/VP-R C190	\$486,779.00	\$446,069.00		\$358,177.10	

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 cost are reported on the line corresponding to the antenna at the invoiced from the manufacturare not broken down according to the categorial listed in the estimated costs columns.
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
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

Total for all systems	\$2,145,225.34	\$1,934,087.34	N/A	\$1,637,562.06	N/A
Sub-total	\$562,286.00	\$521,396.00	N/A	\$431,086.60	N/A
			(attached to Form).		
			6/22/17		
			Dielectric email dated		
			provided in		
			Colorado		
			to Denver,		
Freight	\$9,500.00	\$9,500.00	Freight Cost	\$1,458.10	N/A
			Form 399.		
			attached to		
			217-301		
			Industries proposal		
			by Rex		
			determined		
			cost		
Installation	\$79,850.00	\$79,850.00	Installation	N/A	N/A
			cost.		
			installation		
to site			antenna		
Transportation	\$0.00	\$0.00	Included in	N/A	N/A
base cost)					
in antenna					
antennas (if not included					
power					
high/med			base cost.		
side mount			antenna		
analysis for			included in		
scatter		\$0.00	now		

# Components

Actual Information	
Description	File Name

UHF - Lower Power, Side Mount, Class A, basic slot antenna, 115 kW input, directional,, elliptically or circularly polarized	Component Description: Amount:	50% payment with order \$22,397.50
	Component Description:	Final payment including shipping for interim CH 33 antenna.
	Amount:	\$23,247.50
Sweep test of existing		
antenna	Component Description:	Sweep testing of
		existing antenna intended for
		interim use during
		main antenna
		replacement.
	Amount:	\$4,132.50
Coaxial Switch for Interim		
Antenna	Component Description:	50% due prior to
		shipment.
	Amount:	\$11,566.00
	Component Description:	50% payment due
		with order.
	Amount:	\$11,566.00

UHF - High Power, Side		
Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized	Component Description:	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.
	Amount:	\$165,171.15
	Component Description:	Invoice for current balance due. Shipping and site visit to be invoiced later.
	Amount:	\$32,484.73
	Component Description:	Initial payment with order for TFU- 38DSC/VP-R high
	Amount:	power antenna. \$159,063.12
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Information not provided.	
Side mount brackets for high power antennas (if not included in antenna base cost)	Information not provided.	
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	Information not provided.	
Transportation to site	Information not provided.	
Transportation to site		

Freight		
	Component Description:	Freight charges
		for RF component
		shipments.
	Amount:	\$1,458.10

### **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	\$1,637,562.06	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	\$1,637,562.06	N/A

#### Components

Actual Information Description	File Name	
Structural engineering tower load study for well documented tower	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: Structural analysis

for mounting the new Micronetixx CH 33 interim antenna on

existing ice bridge.

**Amount:** \$1,100.00

Component Description: Tower Analysis -

Main Tower -Labor for

December 2017 -Includes PO

#22547

**Amount:** \$1,064.90

Component Description: Invoice for

structural study for mounting interim antenna during main antenna replacement.

**Amount:** \$1,000.00

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:	Tower Analysis -
		Main Tower -
		January Labor -
		Includes PO
		#22547
	Amount:	\$3,275.00
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		\$49,582.50	
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	\$4,845.00	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	\$0.00	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
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A

Total for all systems	\$2,145,225.34	\$1,934,087.34	N/A	\$1,637,562.06	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization  Sub-total	\$3,680.00 \$132,340.00	\$3,500.00 \$125,250.00	N/A	N/A \$49,582.50	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), License to Cover Application	\$2,365.00	\$2,250.00	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
Project management of the transition	\$79,000.00	\$75,000.00	N/A	\$38,379.25	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,500.00	N/A	\$806.25	N/A

### Components

<b>Actual Information</b>	
Description	File Name

	Component Description:	Perform RF exposure study of
		KRMA transmitter site and submit study with
		Jefferson County telecom permit
	Amount:	application. \$4,845.00
Prepare and or review reimbursement form	Information not provided.	
Perform engineering study for new channel assignment and antenna development	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description:	Engineering Fees for CP Application - line item for 7/6
	Amount:	only \$150.00
	Component Description:	Engineering Fees for Preparation of CP Application - line items for 6/26
	Amount:	and 6/27/17. \$450.00
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	

Prepare request for Special
Temporary Authorization

Component Description:

Preparation of 2nd
STA for KRMA
interim operation.
This application
was for CH 33 and
was approved by
the FCC on 3/6
/2019.

Amount:

\$450.00

Component Description: Preparation of

STA for temporary operation during main antenna replacement

**Amount:** \$356.25

Project management of the transition

Component Description: Project

Management Fees

- May 2017 \$1,125.00

**Amount:** \$1,125.00

**Component Description:** Project

Management Fees
- October 2017

**Amount:** \$225.00

Component Description: Project

Management Fees

- April 2018

**Amount:** \$225.00

**Component Description:** Project

Management Fees

- May 2018

**Amount:** \$1,218.75

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$1,885.00

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$2,252.00

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$1,749.00

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$1,005.00

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$1,955.00

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$415.00

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$842.00

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$1,020.00

Component Description: Legal advice or

assistance with management of

project.

**Amount:** \$350.00

Component Description: Project

Management Fees

- February 2018

**Amount:** \$506.25

Component Description: Repack Project

Management Fees
- October 2018

**Amount:** \$1,218.75

Component Description: Legal advice

related to

management of project - line items for 2/6 and 2/14

only

**Amount:** \$300.00

**Component Description:** Project

Management Fees

- November 2017

**Amount:** \$300.00

**Component Description:** Project

Management Fees
- December 2018

\$1,275.00

Component Description: Project

Amount:

Management Fees

- July-August 2018

**Amount:** \$1,575.00

Component Description: Legal advice

related to

management of

project -

December 2017

**Amount:** \$50.00

Component Description: Project

Management Fees

for April 2017.

**Amount:** \$600.00

Component Description: Legal advice

related to

management of

project

**Amount:** \$150.00

Component Description: Legal Advice

related to

management of

project

**Amount:** \$50.00

Component Description: Project

Management Fees

- November 2018

**Amount:** \$2,793.75

**Component Description:** Project

Management Fees
- July 2017 (all line items except 7/6

/17)

**Amount:** \$656.25

Component Description: Project

Management Fees

for January 2019

**Amount:** \$1,575.00

Component Description: Project

Management Fees

- March 2018

**Amount:** \$450.00

Component Description: Repack Project

Management Fees

- September 2018

**Amount:** \$975.00

Component Description: Project

Management Fees

- September 2017

**Amount:** \$450.00

**Component Description:** Preparation of

STA for temporary operation during main antenna replacement.

**Amount:** \$356.25

Component Description: Project

Management Fees

- June 2018

**Amount:** \$975.00

Component Description: Repack Project

Management for March 2019

**Amount:** \$2,587.50

Component Description: Project

Management Fees for the month of December 2017

**Amount:** \$937.50

Component Description: Project

Management Fees for February 2019

**Amount:** \$975.00

**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 - January

2018

**Amount:** \$800.00

Component Description: Repack Project

Management for

April 2019

**Amount:** \$2,756.25

Component Description: Legal advice

related to

management of project - line item from 2/6/2018 only.

**Amount:** \$50.00

Component Description: Repack Project

Management Fees
- January 2018

**Amount:** \$731.25

**Component Description:** Project

Management Fees

- August 2017

**Amount:** \$150.00

Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application

**Component Description:** 

Amount:

Legal Fees

\$2,418.00

**Component Description:** 

Amount:

Legal Fees \$139.00

**Component Description:** 

Amount:

Legal Fees \$600.00

**Component Description:** 

Amount:

Legal Fees \$878.00

**Component Description:** 

Amount:

Legal Fees \$917.00

Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application Information not provided.

Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.
Attorney Fees - Prepare and File request for Special Temporary Authorization	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	<b>\$66.00</b>	\$66.00	Cost estimate based on actual invoice 8418 from G2 Solutions.	\$66.00	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

Replacement	\$23,757.03	\$23,757.03	See Dielectric	\$23,757.03	N/A
Coaxial			quote		
Switching			180074ASM to		
System			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.		
Interim and	\$5,431.84	\$5,431.84	Transmission	\$5,431.84	N/A
Final	φυ,43 1.04	φ5,451.04		φυ,451.04	IN//
			line		
Transmission			components		
Line			required for		
Components			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.		
Interim CH 33	\$9,750.00	\$9,750.00		\$9,750.00	N//
	\$9,750.00	\$9,750.00	of shipping.	\$9,750.00	N//
Antenna	\$9,750.00	\$9,750.00	of shipping.  Refer to cost estimate	\$9,750.00	N//
Antenna	\$9,750.00	\$9,750.00	of shipping.  Refer to cost estimate included with	\$9,750.00	N/A
	\$9,750.00	\$9,750.00	of shipping.  Refer to cost estimate included with Rex Industries	\$9,750.00	N/A
Interim CH 33 Antenna Installation	\$9,750.00	\$9,750.00	of shipping.  Refer to cost estimate included with	\$9,750.00	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
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
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	\$2,987.00	N/A
Local Zoning	\$5,000.00	\$5,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$48,495.00	\$48,495.00	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 of estimate based of transported direct to a actual of also inclustempored offloadi and stored due to be weather delayer access to mountair site.
Develop and air announcement of upcoming channel change	\$1,500.00	\$1,500.00	N/A	N/A	N/A
MVPD Notification of Channel Change	\$2,500.00	\$2,500.00	N/A	\$1,963.00	N/A

Electrical	\$34,553.00	\$34,553.00	Estimate from	\$33,071.76	N/A
Installation for	ψ5+,005.00	ψο-1,000.00	Greiner	φοσ,σ71.70	14//
Main and			Electric LLC to		
Backup			implement		
Transmitters			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.		
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	\$1,637,562.06	N/A

### Components

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

Temporary Antenna Installation		
iristaliation	<b>Component Description:</b>	Mounting and de-
		mounting of interim
		CH 18 antenna
		including in-place
		troubleshooting of
		high VSWR.
	Amount:	\$14,870.00
Replacement Coaxial		
Switching System	Component Description:	Invoice for
		completed
		shipment of
		budgeted
		components.
	Amount:	\$23,757.03

Interim and Final Transmission Line Components

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

**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: 1-5/8" flange gas

barrier for interim

antenna

transmission line.

**Amount:** \$274.05

Interim CH 33 Antenna Installation		
installation	Component Description:	Installation of new CH 33 interim antenna required to meet Phase 2 deadline for transition to new channel.
	Amount:	\$9,750.00
Electrical Design Engineering	Component Description:	Engineering of
	Amount:	transmitter electrical facilities \$2,800.00
Interim Facility		
Transmission Line Upgrade	Component Description:	3" transmission line and connectors for interim CH 33
	Amount:	facility. \$7,877.03
DTV Medical Facility Notification		
	Component Description:	DTVNotification Invoice INV-001909 - KRMA Medical Notifications with
	Amount:	Estimate \$2,987.00
Local Zoning	Information not provided.	
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	

Handling Charges		
Tarianing Chargos	<b>Component Description:</b>	Add trip transit
		coverage - delivery
		of transmitters to
		Mt. Morrison site.
	Amount:	\$1,500.00
	Component Description:	Fueling charge for
		forklift rental.
	Amount:	\$38.33
	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:	Transportation of
		transmitters to Mt.
		Morrison via 4WD
		flatbed vehicle.
		Revised invoice
		includes timesheet.
	Amount:	\$7,635.00

announcement of

upcoming channel change

MVPD Notification of		
Channel Change	Component Description:	DTVNotification
		Invoice INV-001908
		- KRMA MVPD
		Notifications with
		Estimate.
	Amount:	\$1,963.00
Electrical Installation for		
Main and Backup	Component Description:	Final invoice for
Transmitters		electrical work to
		install replacement
		install replacement transmitters.

# Cost Information

#### **Grand Total**

	Predetermined Cost Estimate	Estimated Cost	Actual Cost
Total for all systems	\$2,145,225.34	\$1,934,087.34	\$1,637,562.06

Reimbursem	entestatus	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

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 abovenamed applicant for the Authorization(s) specified above. Doug Houston Chief Technical Officer

05/19/2019

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.
- The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.
- 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 abovenamed applicant for the Authorization(s) specified above. Doug Houston Chief Technical Officer

05/19/2019

#### **Attachments**