

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

				-		
	Facility	70492	Service: DTV	Call	KUBE-TV	Channel: 31 (UHF)
	ID:			Sign:		
File 0000028493						
	Number:					
	FRN: 002	29023009	Date	05/20		
			Submitted:	/2019		

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
NRJ TV HOUSTON LICENSE CO., LLC	Robert Andrews 722 S. DENTON TAP ROAD SUITE 130 COPPELL, TX 75019 United States	+1 (972) 947-3391	bob@nrjventures. com	Limited Liability Company

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer	Preparer Contact Name and Information				
Contact Information	Applicant	Address	Phone	Email	
	The Preparer is same as the reimbursement contact.				

Broadcaster	Question	Response
Information		
and		
Transition		
Plan		

Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
Briefly describe transition plan	Replacement in kind on existing tower at existing location. Will purchase new transmitter to replace non re-tunable IOT system currently in place. Interim antenna will be installed to protect from extensive outages required by tower top work on stations

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

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Primary	Add Transmitter Information			
Transmitter	Section	Question	Response	
	Existing Transmitter Description	Type of change	Purchase New	
		Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is this transmitter currently shared with another station?	No	
		Is this transmitter currently in operating condition?	Yes	
	Existing Transmitter Manufacturer and Type	Manufacturer		
		Model	Sigma IOT CD3220P2	
		Year	2006	
		Туре	Inductive Output Tube	
		IOT Power Type	Two	
		Power Capacity	47.2 kW	

Primary	New Transmitter Costs			
Transmitter	Section	Question	Response	
	New Transmitter	Use	Primary (Main)	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	Yes	
		Manufacturer		
		Model	ULXTE 72	
		Transmitter Type	Solid State	
		Solid State Cooling	Liquid Cooled	
		Solid State Power capacity	42 kW	
		Justification for New Transmitter	Current transmitter, no longer supported, not re- tunable. Comparable IOT unit not available from this vendor. See attachment.	

Primary	Other Transmitter Costs		
Transmitter	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	Yes
		Switchgear (industrial 800 amp)	Yes
		Transformer (480V)	Yes
		Power	300 kVA
		Rigid Conduit and Wiring	Yes

	Size	4 inches
	Length	200.0 feet
	Other Electrical Service	No
	Description	N/A
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Туре	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary	Other Transmitter Cost Not Listed		
Transmitter	Name	Description	
	MFR Site Survey	Required to verify installation conditions for transmitter	
	Misc Small Parts	Miscellaneous parts required during transmitter installation	

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

Primary	Existing Antenna Information			
Antenna	Section	Question	Response	
	Existing Antenna Description	Type of change	Purchase New	
		Antenna Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is the existing antenna shared with another station or stations?	No	
		Is the existing antenna directional?	Yes	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	Yes	
	Existing Antenna	Class	Full Power	
	Manufacturer and Type	Mounting	Top Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Elliptical	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels	N/A	
		Design power capacity in use	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	1000.0 kW	

	Manufacturer	
	Model	ATW30H4- ESCH-41H
-	Year	2007

Primary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	Yes	
		Will antenna be located on or in close proximity to an antenna farm?	Yes	
	New Antenna Manufacturer and Types	Class	Full Power	
		Mounting	Top Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Elliptical	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels/Bays	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Design power capacity in use	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	820.0 kW	
		Manufacturer		

Model	ATW25HS4 ESCH-31H
Year	2017
Justification for New Antenna	Existing antenna is single channel only, not compatible with new repack channel (31)

Other Antenna Costs

Primary Antenna

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Туре	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
Elbow Complex	Do you require the separate purchase of the Elbow Complex?	No
	Broadband or Single Channel?	N/A
	Feed Line Size	N/A
Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	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

PrimaryOther Antenna Cost Not ListedAntennaInformation not provided.

Interim	New Antenna Costs			
Antenna	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	Full Power	
		Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	Broadband Slot	
		Number of Stations Supported	1	
		Number of Panels/Bays	16	
		Lower Limit	470.00 MHz	
		Upper Limit	698.00 MHz	
		Design power capacity in use	66.0 %	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	40.0 kW	
		Manufacturer		
		Model	TFU-16WB- R C160	
		Year	2018	

Justification for New Antenna	Due to the
	extensive
	work
	required at
	the
	candelabra
	level,
	substantial
	outages are
	predicted.
	Interim
	antenna at
	lower level
	will keep
	station on-
	air.
	Purchase
	of an off-
	the-shelf
	broadband
	antenna
	was
	cheaper
	than
	custom
	slotted
	coax single
	channel ant

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	
	Section Elbow Complex Side Mount Brackets Pattern Scatter Analysis	SectionQuestionElbow ComplexDo you require the separate purchase of the Elbow Complex?Broadband or Single Channel?Feed Line SizeSide Mount BracketsDo you require the separate purchase of side mount brackets for an antenna?Pattern Scatter AnalysisDo you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?Sweep TestDo you require the sweep testing of	

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InterimOther Antenna Cost Not ListedAntennaInformation not provided.

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

Primary	Existing Transmission Line			
Transmissio	n Section	Question	Response	
	Existing Transmission Line Description	Type of change	Purchase New	
		Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is the existing transmission line shared with another station or stations?	No	
		Is Transmission Line in operating condition?	Yes	
	Existing Transmission	Manufacturer		
	Line Manufacturer and Type	Туре	Rigid	
		Diameter	8 3/16 inches	
		Other Diameter	N/A	
		Segment Length	19 1/2 inches	
		Other Segment Length	N/A	
		Number of parallel runs	1	
		Length	2100 feet per run	

Primary	New Transmission Line			
Transmissio	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	
		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	2100 feet per run	
		Justification for New Transmission Line	Repack channel (31) is prohibited on the 19.5 foot sections that are currently installed.	

Other Transmission Line Expenses Not Listed Transmission

Interim	New Transmission Line			
Transmissio	n Line Section	Question	Response	
	New Transmission Line Costs	Use	Interim	
		Description of Use	N/A	
		Change Type	Purchase New	
		Туре	Rigid	
		Diameter	6 1/8 inches	
		Segment Length	19 ¾ '	
		Other Segment Length		
		Number of parallel runs	1	
		Length	1700 feet per run	
		Justification for New Transmission Line	Required to feed interim antenna due to extensive work requiring extended downtime on candelabra top mount antennas	

Interim Other Transmission Line Expenses Not Listed

Transmission home tion not provided.

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

Existing Tower

Description Tower Use Primary (Main Tower Use N/A Description of Use N/A Ownership Leased Is this tower consider Complex? Candelabra Is this tower currently shared with any other stations? Yes One or more FM, AM or TV radio broadcaster(s) Yes Others Types of Users No Is tower compliant with Rev G? No Existing Tower Structure Registration Do you have a tower registration number? Yes ASR Number 1064696 29° 34' 16.0"	Primary	Existing Tower			
Description Tower Use Primary (Main Tower Use N/A Description of Use N/A Ownership Leased Is this tower consider Complex? Candelabra Is this tower currently shared with any other stations? Yes One or more FM, AM or TV radio broadcaster(s) Yes Others Types of Users No Is tower compliant with Rev G? No Existing Tower Structure Registration Do you have a tower registration number? Yes ASR Number 1064696 29° 34' 16.0° North American Datum of 1983)) Latitude (NAD83) 095° 30' 38.0	Tower	Section	Question	Response	
Tower UsePrimary (Main Description of UsePrimary (Main N/ADescription of UseN/AOwnershipLeasedIs this tower consider Complex?CandelabraIs this tower currently shared with any other stations?YesOne or more FM, AM or TV radio broadcaster(s)YesOthers Types of UsersNoIs tower compliant with Rev G?NoExisting Tower Structure RegistrationDo you have a tower registration number?YesASR Number1064696Coordinates (NAD83 (North American Datum of 1983))Latitude (NAD83)29° 34' 16.0°		-	Type of change	Modify Existing	
CovereshipLeasedSthis tower consider Complex?CandelabraIs this tower currently shared with any other stations?YesOne or more FM, AM or TV radio broadcaster(s)YesOthers Types of UsersNoIs tower documented for structural analysis?NoIs tower compliant with Rev G?NoExisting Tower Structure Registration of 1983)Do you have a tower registration number?YesCoordinates (NADB3 (North American Datum of 1983))Latitude (NAD83)29° 34' 16.0"		Description	Tower Use	Primary (Main)	
Is this tower consider Complex?CandelabraIs this tower currently shared with any other stations?YesOne or more FM, AM or TV radio broadcaster(s)YesOthers Types of UsersNoIs tower documented for structural analysis?NoIs tower compliant with Rev G?NoExisting Tower Structure RegistrationDo you have a tower registration number?YesASR Number1064696Coordinates (NAD83 (North American Datum of 1983))Latitude (NAD83)095° 30' 38.0 W-			Description of Use	N/A	
Is this tower currently shared with any other stations?YesIs this tower currently shared with any other stations?YesOne or more FM, AM or TV radio broadcaster(s)YesOthers Types of UsersNoIs tower documented for structural analysis?NoIs tower compliant with Rev G?NoIs tower compliant with Rev G?NoDo you have a tower registration number?YesASR Number1064696Coordinates (NAD83 (North American Datum of 1983))Latitude (NAD83)29° 34' 16.0"Longitude (NAD83)095° 30' 38.0 W-			Ownership	Leased	
stations?stations?One or more FM, AM or TV radio broadcaster(s)YesOthers Types of UsersNoIs tower documented for structural analysis?NoIs tower compliant with Rev G?NoExisting Tower Structure RegistrationDo you have a tower registration number?YesASR Number1064696Coordinates (NAD83 (North American Datum of 1983))Latitude (NAD83)29° 34' 16.0"Longitude (NAD83)095° 30' 38.0 W-			Is this tower consider Complex?	Candelabra	
broadcaster(s) No Others Types of Users No Is tower documented for structural analysis? No Is tower compliant with Rev G? No Existing Tower Structure Registration Do you have a tower registration number? Yes ASR Number 1064696 Coordinates (NAD83 (North American Datum of 1983)) Latitude (NAD83) 29° 34' 16.0" Longitude (NAD83) 095° 30' 38.0 W-				Yes	
Is tower documented for structural analysis?NoIs tower compliant with Rev G?NoExisting Tower Structure RegistrationDo you have a tower registration number?YesASR Number1064696Coordinates (NAD83 (North American Datum of 1983))Latitude (NAD83)29° 34' 16.0"Longitude (NAD83)095° 30' 38.0 W-				Yes	
Is tower compliant with Rev G?NoExisting Tower Structure RegistrationDo you have a tower registration number?YesASR Number1064696Coordinates (NAD83 (North American Datum of 1983))Latitude (NAD83)29° 34' 16.0"Longitude (NAD83)095° 30' 38.0 W-			Others Types of Users	No	
Existing Tower Structure RegistrationDo you have a tower registration number?YesASR Number1064696Coordinates (NAD83 (North American Datum of 1983))Latitude (NAD83)29° 34' 16.0"Longitude (NAD83)095° 30' 38.0 W-			Is tower documented for structural analysis?	No	
Structure Registration ASR Number 1064696 Coordinates (NAD83 (North American Datum of 1983)) Latitude (NAD83) 29° 34' 16.0" Longitude (NAD83) 095° 30' 38.0 W-			Is tower compliant with Rev G?	No	
ASR Number 1064696 Coordinates (NAD83 (North American Datum of 1983)) Latitude (NAD83) 29° 34' 16.0" Longitude (NAD83) 095° 30' 38.0 W-		-	Do you have a tower registration number?	Yes	
North American Datum of 1983))Longitude (NAD83)095° 30' 38.0 W-		Structure Registration	ASR Number	1064696	
of 1983)) Longitude (NAD83) 095° 30' 38.0 W-		North American Datum	Latitude (NAD83)	29° 34' 16.0" N-	
Overall Structure Height 1973.07 feet			Longitude (NAD83)	095° 30' 38.0" W-	
			Overall Structure Height	1973.07 feet	
Support Structure Height1842.17 feet			Support Structure Height	1842.17 feet	
Ground Elevation Above Mean Sea Level 76.77 feet (AMSL)				76.77 feet	

Structure Type	GTOWER - Guyed Structure Used for Communication Purposes
Tower Owner	American Towers, LLC
Date Constructed	11/19/2001

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
12895	KETH-TV	DTV
66790	KUGB-CD	DTV
70492	KUBE-TV	DTV
60537	KFTH-DT	DTV
64984	KTMD	DTV
24436	KLTJ	DTV
58835	KPXB-TV	DTV

Primary Tower Modification Costs

Tower

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

Tower Rigging Costs Primary Tower

Section	Question	Response
Tower Rigging Costs	Complex Tower	Candelabra
Helicopter Services Required	Are helicopter services required?	No

Primary Tower

Other Tower Expenses Not Listed

Name	Description
Interim Tower Lease Cost	Expected additional tower lease charges for temporary installation of interim antenna and interim transmission line
Expenses for On-Site Crew	Travel, Lodging, Per Diem for on-site crew

Outside Professional	Section	Question	Response
	I Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	160
		Explanation	Extensive co- ordination and on-site supervision required due to the complex nature of the tower project. Estimated at \$100/hr
	Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
		Prepare engineering section of Form FCC Construction Permit Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare engineering section of Form FCC License to Cover Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare request for Special Temporary Authority	Yes
		Quantity	1
		Do you have Distributed Transmission System engineering services?	N/A
		Critical Facility	N/A
		Terrain-Shielded Facility	N/A

Attorney and Other Outside Consulting	Prepare and file Form FCC Construction Permit Application	Yes
Services	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	Yes
	Quantity	1
	NEPA Section 106 environmental review	Yes
	Environmental Assessment	No
	ASR Modification	Yes
	FAA Consultation (including preparation of FAA Form 7460)	Yes
	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	Yes
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
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Professional	Services Costs	Description
	Proj Manager Expenses	Travel, per diem etc expenses for on-site proj mgt

Other	Section	Question	Response
Expenses	AM Pattern Disturbance	Is an Impact Study needed?	No
		Is Remediation needed?	No
	Facility Expenses	Name	N/A
		Other Distributed Transmission System Expenses Not listed	N/A
		Name	N/A
		Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
	Permit and Filing Costs	Local Zoning	No
		Non-zoning permits	Yes
		BLM or NFS Coordination	No
		FCC Construction Permit Minor Change	Yes
		FCC License to Cover Application	Yes
		FCC Special Temporary Authority Application	Yes
	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 Not Listed

Expenses Information not provided.

Transmitters

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmitter ULXTE 72	\$1,600,970.00	\$1,467,345.00		\$1,353,323.72	
Misc Small Parts	\$2,000.00	\$2,000.00	N/A	\$1,662.88	N/A
MFR Site Survey	\$16,370.00	\$16,370.00	Required for proper installation and site planning.	N/A	N/A
4" Rigid Conduit and Wiring (Cost per foot)	\$20,200.00	\$11,500.00	N/A	\$10,510.80	N/A
Transformer 3 phase /480v - 300 KVA	\$36,800.00	\$32,000.00	N/A	\$29,247.44	N/A
Switchgear - industrial 800 amp	\$38,200.00	\$18,600.00	N/A	\$17,000.07	N/A
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$1,374,875.00	N/A	\$1,283,872.11	N/A
Service entrance 3 phase/800 amp/208 volt	\$14,400.00	\$12,000.00	N/A	\$11,030.42	N/A
Sub-total	\$1,600,970.00	\$1,467,345.00	N/A	\$1,353,323.72	N/A

Total for all	\$5,009,252.00	\$3,793,627.70	N/A	\$3,022,217.18	N/A
systems					

Components

Actual Information Description	File Name	
Misc Small Parts	Component Description: Amount:	Misc small parts and supplies for transmitter installation \$725.47
	Component Description: Amount:	Mount for GPS antenna \$19.85
	Component Description: Amount:	Small parts for transmitter installation \$917.56
MFR Site Survey	Information not provided.	
4" Rigid Conduit and Wiring (Cost per foot)	Component Description: Amount:	45% final payment \$4,729.86
	Component Description: Amount:	25% downpayment \$2,627.70
	Component Description: Amount:	30% progress payment \$3,153.24

Transformer 3 phase/480v - 300 KVA	Component Description: Amount:	45% final payment \$13,161.35		
	Component Description:	30% progress payment		
	Amount:	\$8,774.23		
	Component Description: Amount:	25% downpayment \$7,311.86		
Switchgear - industrial 800 amp				
	Component Description: Amount:	25% downpayment \$4,250.02		
	Component Description:	30% progress payment		
	Amount:	\$5,100.02		
	Component Description:	45% final payment		
	Amount:	\$7,650.03		

UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW		
	Component Description:	ULXTE-72
		Transmitter
	Amount:	\$453,878.86
	Component Description:	ULXTE-72
		Transmitter
	Amount:	\$453,878.86
	Component Description:	## New
		attachment
		includes cover
		letter requested by
		reviewer. ## Final
		invoice for
		materials;
		installation and
		freight still to be billed
	Amount:	\$376,114.39
Service entrance 3 phase /800 amp/208 volt	Component Description:	45% final normant
	Amount:	45% final payment \$4,935.52
	Anount.	ψτ,000.02
	Component Description:	30% progress
		payment
	Amount:	\$3,290.33
	Component Description:	Power cords for
		temporary power
		to encoders,
		networking, etc,
		while main power
		supply modified for
	Amount	new transmitter
	Amount:	\$62.63
	Component Description:	25% downpayment \$2,741.94

Antennas

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Antenna TFU-16WB- R C160	\$325,730.00	\$119,035.00		\$118,884.99	
UHF . Broadband Slot, Side Mount, 16 bay, 40 kW input, directional, horizontally polarized	\$129,500.00	\$14,787.00	Note that the first two invoices for this antenna, totaling \$97,848, were submitted in a different category, so the final expense in this category is actually \$97,848 plus \$14,787 = \$112,635	\$14,787.00	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$6,249.99	N/A

Antenna ATW25HS4- ESCH-31H\$289,500.00\$237,600.00N/A\$209,916.33N/AUHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized\$6,730.00\$6,400.00N/A\$5,163.87N/ASweep test of existing antenna\$6,730.00\$6,400.00N/A\$5,163.87N/ASub-total\$621,960.00\$363,035.00N/A\$333,965.19N/A						
Antenna Attw25HS4- ESCH-31H UHF - High \$289,500.00 \$237,600.00 N/A \$209,916.33 N/A Power Top Mount (200-1000 \$209,916.33 N/A \$209,916.33 N/A (200-1000 KW), One saitenna , elliptically \$209,916.33 N/A Sweep test \$6,730.00 \$6,400.00 N/A \$5,163.87 N/A Sweep test \$6,730.00 \$6,400.00 N/A \$5,163.87 N/A Sub-total \$621,960.00 \$363,035.00 N/A \$333,965.19 N/A Total for \$5,009,252.00 \$3,793,627.70 N/A \$3,022,217.18 N/A	Lower Power Side Mount, One station - 200-500 kW, horizontally	\$189,500.00	\$97,848.00	Notice: Estimate adjusted and locked because line has been superseded.	\$97,848.00	N/A
Power Top Mount (200-1000 kW), One station antenna, elliptically or or circularly polarized \$6,730.00 \$6,400.00 N/A \$5,163.87 N/A Sweep test of existing antenna \$6,730.00 \$6,400.00 N/A \$5,163.87 N/A Sub-total \$621,960.00 \$363,035.00 N/A \$333,965.19 N/A Total for all \$5,009,252.00 \$3,793,627.70 N/A \$3,022,217.18 N/A	Antenna ATW25HS4-	\$296,230.00	\$244,000.00		\$215,080.20	
of existing antenna Sub-total \$621,960.00 \$363,035.00 N/A \$333,965.19 N/A Total for \$5,009,252.00 \$3,793,627.70 N/A \$3,022,217.18 N/A all	Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly	\$289,500.00	\$237,600.00	N/A	\$209,916.33	N/A
Total for \$5,009,252.00 \$3,793,627.70 N/A \$3,022,217.18 N/A all	of existing	\$6,730.00	\$6,400.00	N/A	\$5,163.87	N/A
all	Sub-total	\$621,960.00	\$363,035.00	N/A	\$333,965.19	N/A
	all	\$5,009,252.00	\$3,793,627.70	N/A	\$3,022,217.18	N/A

Components

Actual Information Description	File Name	
UHF . Broadband Slot, Side Mount, 16 bay, 40 kW input, directional, horizontally polarized	Component Description:	Final payment for interim antenna, including freight
	Amount:	\$14,787.00

Sweep test of existing antenna	Component Description: Amount:	30% deposit. Sweep Test - Interim Antenna /Trans Line \$1,725.97
	Component Description:	Final Installment Interim Antenna Sweep
	Amount:	\$1,086.52
	Component Description: Amount:	Sweep Test - progress billing \$3,437.50
UHF - Lower Power Side Mount, One station - 200- 500 kW, horizontally polarized	Component Description: Amount:	Antenna - UHF \$48,924.00
	Component Description: Amount:	Antenna - UHF \$48,924.00

UHF - High Power Top Mount (200-1000 kW), One		
station antenna, elliptically	Component Description:	New Primary Antenna, First
or circularly polarized		invoice,
		representing 30%
		of cost
	Amount:	\$68,654.27
	Component Description:	Primary Antenna -
		3rd Progress
		Billing (Prior to
		Ship)
	Amount:	\$91,552.06
	Component Description:	Primary Antenna
		progress billing
	Amount:	\$49,710.00
Sweep test of existing		
antenna	Component Description:	Sweep Test -
		Progress Billing
	Amount:	\$3,437.50
	Component Description:	Sweep Test of
		antenna. First
		invoice
		representing 30%
		of total
	Amount:	\$1,726.37

Transmission Line

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmission Line	\$343,400.00	\$293,000.00		\$271,008.06	
Rigid Transmission Line - copper, 6 1/8"	\$343,400.00	\$293,000.00	N/A	\$271,008.06	N/A
Primary Transmission Line	\$728,700.00	\$569,953.00		\$467,860.21	
Rigid Transmission Line - copper, 8 3 /16"	\$728,700.00	\$569,953.00	N/A	\$467,860.21	N/A
Sub-total	\$1,072,100.00	\$862,953.00	N/A	\$738,868.27	N/A
Total for all systems	\$5,009,252.00	\$3,793,627.70	N/A	\$3,022,217.18	N/A

Components

Actual Information Description	File Name	
Rigid Transmission Line - copper, 6 1/8"	Component Description:	Rental of lift and purchase of nitrogen for interim line commissioning
	Amount:	\$937.72

Additional parts to convert interim facility operation from pre-repack channel 41 to post- repack ch 31 \$6,207.88
Fourth Invoice Interim Transmission Line. Includes additional parts (hangers, etc.) identified at time of install \$39,028.15
Interim Transmission Line Connectors \$1,779.90
Interim Transmission Line progress billing \$49,000.22
Interim Transmission Line Connectors - 50% deposit \$1,779.90
30% deposit \$78,605.09

	Component Description:	Interim Trans Line - progress payment (prior to
		ship)
	Amount:	\$93,669.20
Rigid Transmission Line -		
copper, 8 3/16"	Component Description:	Final custom-cut
		connecting pieces
	Amount:	\$2,019.74
	Component Description:	Impedance
		Transformer and
		Fine Matcher
	Amount:	\$4,599.33
	Component Description:	Primary
		transmission line.
		First Invoice for
		30% of cost
	Amount:	\$165,957.72
	Component Description:	Primary Trans Line
		Progress Billing
	Amount:	\$102,401.73
	Component Description:	Primary Trans Line
		Progress Billing
		(prior to ship)
	Amount:	\$192,881.69

Tower Equipment and Rigging Costs

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cos Justificatic
Primary Tower GTOWER	\$1,566,000.00	\$966,728.00		\$535,392.09	
Complex Tower (includes, for example, those with candelabras and/or stacked antennas)	\$421,000.00	\$502,853.00	Actual ERI contracts for rigging both 1) primary antenna and trans line (\$243,755) and 2) interim antenna and trans line (\$207,097), together exceed predetermined costs. Mar 13 2019 added \$15,600 for weather day costs. May 17 added \$36,400 for weather.	\$478,567.09	N/A
Serious tower reinforcement /modifications	\$1,052,000.00	\$375,000.00	N/A	(\$3,750.00)	N/A

Interim Tower Lease Cost	\$38,400.00	\$38,400.00	Need to lease space on tower for interim antenna and interim transmission line. Updated 9/24/2018 per final agreement with American Tower	\$38,400.00	N/A
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$22,175.00	N/A	\$22,175.00	N/A
Expenses for On-Site Crew	\$28,300.00	\$28,300.00	Expense for on-site crew for tower, antenna and line work. See attachment.	N/A	N/A
Sub-total	\$1,566,000.00	\$966,728.00	N/A	\$535,392.09	N/A
Total for all systems	\$5,009,252.00	\$3,793,627.70	N/A	\$3,022,217.18	N/A

Components

ctual Information escription	File Name		
Complex Tower (includes, or example, those with andelabras and/or stacked antennas)			

Component Description: Amount:	Final 15% installment installation of interim trans line and antenna \$36,130.68
Component Description:	"Weather Day" charges for May 8 and 10, 2019 installing primary trans line and antenna \$5,850.00
Component Description: Amount:	"Weather Day" charges for April 6, 10, 12, 17, 19, 21, 23, 24, 2019 installing primary trans line and antenna \$30,550.00
Component Description: Amount:	Interim Antenna and Trans Line Rigging Costs, 30% Deposit \$57,394.17
Component Description: Amount:	Installation of interim antenna and transmission line. Progress billing. \$114,308.15

Component Description:	"Weather Day" charges for 6 person crew Feb 26, 27 and 28, 2019 installing interim trans line and antenna \$11,700.00
Component Description:	"Weather Day" charges for 6 person crew, Feb 5, 2019, installing interim transmission line and antenna \$3,900.00
Component Description: Amount:	Installation of antenna and transmission line. First invoice for 30% of costs. \$73,126.54
Component Description: Amount:	Installation of primary antenna and transmission line. Progress billing. \$145,607.55

Expenses for On-Site Crew	Information not provided.	
	Component Description: Amount:	Tower mapping \$12,400.00
documentation necessary for tower load study	Amount:	\$9,775.00
undocumented/poorly documented tower and preparation of	Component Description:	Tower Structural Engineering Analysis
Tower mapping for an		
	Amount:	Lease \$38,400.00
Interim Tower Lease Cost	Component Description:	Interim Tower
		IN/A
	Amount:	working properly N/A
		"Denied" so subtotals aren't
		has status
		component because this one
		entered new
	Component Description:	Zeroed out and
	Amount:	(\$97,500.00)
		by American Tower
		that were refunded
		previously reimbursed costs
	Component Description:	Refund of
	Amount:	\$93,750.00
	A	/Modification
		Reinforcement
	Component Description:	Serious Tower

Outside Professional Services

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$101,882.00	\$89,566.70		\$44,854.91	
Proj Manager Expenses	\$10,112.00	\$10,112.00	Weather delays in project in Houston extended construction period 2 months past original schedule, significantly increasing the number of required trips to Houston.	\$10,111.76	N/A
RF Exposure Measurements	\$21,050.00	\$15,000.00	N/A	\$3,750.00	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	\$2,105.00	\$1,400.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$500.00	N/A	N/A	N/A

NEPA Section 106 environmental review, if needed	\$6,310.00	\$5,400.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$3,680.00	\$3,500.00	N/A	\$2,140.45	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
Project management of the transition	\$25,280.00	\$24,154.70	updated 1/4 /2019 per actual invoices received	\$24,154.70	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$298.00	N/A
Address transition timing and coordination issues w/ other stations and wireless	\$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	\$650.00	N/A

Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$2,000.00	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	\$2,050.00	\$1,750.00	actual invoice from RF Engineering consultant	\$1,750.00	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	N/A	N/A
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	\$101,882.00	\$89,566.70	N/A	\$44,854.91	N/A
Total for all systems	\$5,009,252.00	\$3,793,627.70	N/A	\$3,022,217.18	N/A

Components

Actual Information	
Description	File Name

Component Description: Amount:	Trip Expenses for Proj Mgmt \$2,382.87
Component Description: Amount:	Trip Expenses for Proj Mgmt \$2,533.09
Component Description: Amount:	Trip Expenses for Proj Mgmt \$2,202.38
Component Description:	Trip Expenses related to preparation of initial 399 cost estimates
Amount:	\$512.18
Component Description: Amount:	Project management - site survey and meetings \$595.51
Component Description: Amount:	Project Manager's Expense \$871.48
Component Description:	Trip expenses for project management
Amount:	\$587.65
Component Description:	Trip expenses for project management \$426.60
Amount.	\$420.0U

Proj Manager Expenses

Measurements	Component Description:	RF Exposure Measurements
	Amount:	\$3,750.00
	Component Description:	Zeroed out per Reimbursement Team instructions
	Amount:	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.	
ASR modification (prepare FCC Form 854)	Information not provided.	
NEPA Section 106 environmental review, if needed	Information not provided.	
Attorney Fees - Prepare and File request for		
Special Temporary Authorization	Component Description: Amount:	Interim Facility ST \$828.00
	Component Description:	Interim facility ST
	Amount:	\$44.50
	Component Description:	Interim Facility ST extension for another 6 months
	Amount:	\$508.95
	Component Description:	Attorney fees-
		Prepare Special Temporary Authorization
	Amount:	\$759.00

Attorney Fees - Negotiation of lease and	Information not provided.
other matters for shared	
locations	

Project management of the		
transition	Component Description:	Project
		Management
	Amount:	\$5,000.00
	Component Description:	Professional
	Component Description:	services
	Amount:	\$250.00
	Anount.	φ200.00
	Component Description:	Project
		management
	Amount:	\$1,395.00
	Component Description	Project
	Component Description:	Project
	Americati	Management
	Amount:	\$2,500.00
	Component Description:	Fixed fee charged
		by tower landlord
		for management of
		timelines and
		schedules during
		the repack
	Amount:	\$9,480.00
	Component Description:	Project
		management
	Amount:	\$625.00
	Component Description:	Project
		Management
	Amount:	\$4,654.70
	Component Description:	Project
		management
	Amount:	\$250.00

reimbursement form	Component Description:	Assistance with
	component Description.	399 preparation
	Amount:	\$298.00
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	
Perform engineering study for new channel assignment and antenna	Component Description:	Interference study of repack channel
development	Amount:	31 \$650.00
Prepare engineering section of FCC Form 2100 (main), Construction	Component Description:	Prepare Construction Perm
Permit Application	Amount:	Application (Main) \$1,750.00
	Component Description:	Revise and edit Form 2100 Construction Perm
	Amount:	Application \$250.00
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare request for Special Temporary		Deces
Authorization	Component Description:	Prepare engineering portion of STA application for interim facility
		operation

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

Other Expenses

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$46,340.00	\$44,000.00		\$15,813.00	
MVPD Notification of Channel Change	\$5,000.00	\$5,000.00	Legal Fees for research, and delivery of notices.	\$1,865.00	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$390.00	A six month extension was required to keep the interim facility operating to the end of Phase 2, triggering an additional \$200 filing fee	\$390.00	N/A
DTV Medical Facility Notification	\$11,550.00	\$9,065.00	N/A	\$8,465.00	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A

Fotal for all systems	\$5,009,252.00	\$3,793,627.70	N/A	\$3,022,217.18	N/A
Sub-total	\$46,340.00	\$44,000.00	N/A	\$15,813.00	N/A
of upcoming channel change			to create spot. 2 hrs.		
air announcement			outside contractor		
Develop and	\$400.00	\$400.00	Cost for	N/A	N/A
Charges			antenna, and lines.		
Equipment Delivery and Handling	\$12,000.00	\$12,000.00	Shipping charge est for	N/A	N/A
net of any salvage value)			lines and fittings.		
equipment and other waste,			old transmitter,		
Costs (for			disposal of		
Disposal	\$15,000.00	\$15,000.00	Proper	\$5,093.00	N/A
Non-zoning permits	\$750.00	\$750.00	N/A	N/A	N/A
Fees - Form 2100 license to cover application					
FCC Filing	\$335.00	\$325.00	N/A	N/A	N/A

Components

Actual Information Description	File Name	
MVPD Notification of Channel Change	Component Description:	Notifications of channel change sent to MVPD's
	Amount:	\$1,865.00

FCC Filing Fees - Special Temporary Authorization		
request	Component Description:	Interim STA
·		extension filing fee
	Amount:	\$200.00
	Component Description:	Filing Fees
	Amount:	\$190.00
DTV Medical Facility		
Notification	Component Description:	Notifications to
		Medical Facilities
		of Upcoming
		Channel Change
	Amount:	\$8,465.00
FCC Filing Fees - Form 2100 minor change CP application	Information not provided.	
FCC Filing Fees - Form	Information not provided.	
2100 license to cover application		
Non-zoning permits	Information not provided.	

Disposal Costs (for equipment and other waste, net of any salvage value)	Component Description: Amount:	Dumpster costs for disposal of packing materials for the transmitter, antennas, and transmission line \$2,157.00
	Component Description:	Dumpster costs for disposal of packing materials for the transmitter, antennas, and transmission line \$1,498.00
	Component Description:	Dumpster costs for disposal of packing materials for the transmitter, antennas, and transmission line \$1,438.00
Equipment Delivery and Handling Charges	Information not provided.	
Develop and air announcement of upcoming channel change	Information not provided.	

Cost	Grand Total			
Information Total for all systems		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$5,009,252.00	\$3,793,627.70	\$3,022,217.18

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

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
		 The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. The above-named 	
		entity acknowledges that all certifications and attached documentation are considered material representations.	
		3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

- 4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
- The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
- 6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
- 7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.	
I declare, under penalty of perjury, that I am an authorized representative of the above- named applicant for the Authorization(s) specified above.	Jeff Hazelrigg CFO 05/20/2019

Certification	Section	Question	Response
Certification	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		 The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 	
		2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.	
		3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	

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

8.	The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.	
9.	The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.	
an au name	are, under penalty of perjury, that I am thorized representative of the above- d applicant for the Authorization(s) ied above.	Jeff Hazelrigg <i>CFO</i> 05/20/2019

Attachments