

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility	71928	Service: DTV	Call	WNED-TV	Channel: 31 (UHF)
ID:			Sign:		
File	00000	28145			
Number:					
FRN: 000	03410461	Date	02/28		
		Submitted:	/2020		

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
WESTERN NY PUBLIC BROADCASTING ASSOC. Doing Business As: WNED-TV	JOSEPH C. PUMA PO Box 1263 BUFFALO, NY 14240 United States	+1 (716) 845-7000	jpuma@wned. org	Not-for- Profit

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.	Yes
Briefly describe transition plan	Sweep line/antenna to asses performance on new channel, remove existing IOT main & backup transmitters & channel-specific indoor RF systems, replace w/solid-state transmitters and appropriate indoor RF systems, tune & optimize antenna/line on new channel

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

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Auxiliary	Add Transmitter Information					
Transmitter	Section	Question	Response			
	Existing Transmitter Description	Type of change	Purchase New			
		Use	Auxiliary (Backup)			
		Description of Use	backup			
		Ownership	Owned			
		Owner	N/A			
		Site	N/A			
		Is this transmitter currently shared with another station?	No			
	Existing Transmitter Manufacturer and Type	Is this transmitter currently in operating condition?	Yes			
		Manufacturer				
		Model	DCXP			
		Year	2002			
		Туре	Inductive Output Tube			
		IOT Power Type	Single			
		Power Capacity	25 kW			

Add Transmitter Information

Auxiliary	New Transmitter Costs				
Transmitter	Section	Question	Response		
	New Transmitter	Use	Auxiliary (Backup)		
		Change Type	Purchase New		
		Is this a request for upgraded equipment?	Yes		
		Manufacturer			
		Model	ULXTE-12		
		Transmitter Type	Solid State		
		Solid State Cooling	Liquid Cooled		
		Solid State Power capacity	8.5 kW		
		Justification for New Transmitter	Retuning high-power IOT transmitter from ch.43 to 31 requires a new IOT, new circuit assemblies, "additional costs for sustaining engineering" and exceeds the cost of a properly sized solid- state transmitter. Please see retune quote and letter attached.		

Auxiliary	Other Transmitter Costs				
Transmitter	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	Yes		
		Description	45 kVA 480v to 208v transformer, includes conduit and primary wiring to auxiliary transmitter		
	HVAC Service	Does the replacement transmitter require HVAC Service?	No		
		Туре	N/A		
		Size	N/A		
		Other Size	N/A		
	Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No		
		Size	N/A		
	Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A		
		Is a channel 14 Mask Filer needed?	N/A		
		Is additional field engineering time needed?	N/A		
		Number of Days	N/A		

Other Transmitter Cost Not Listed

Auxiliary	Other Transmitter Cost Not Listed			
Transmitter	Name	Description		
	Copper tubing and fittings	Additional lengths of copper coolant tubing & fittings for extended run to outdoor heat exchanger		
	Conduit and wiring - pump and heat exchanger	Install circuits, conduit and wiring for coolant pump and heat exchanger		

Primary	Existing Transmitter Information				
Transmitter	Section	Question	Response		
	Existing Transmitter Description	Type of change	Purchase New		
		Use	Primary (Main)		
		Description of Use	N/A		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is this transmitter currently shared with another station?	No		
	Existing Transmitter Manufacturer and Type	Is this transmitter currently in operating condition?	Yes		
		Manufacturer			
		Model	DCXP		
		Year	2002		
		Туре	Inductive Output Tube		
		IOT Power Type	Single		
		Power Capacity	25 kW		

Existing Transmitter Information

Primary	New Transmitter Costs			
Transmitter	Section	Question	Response	
	New Transmitter	Use	Primary (Main)	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	Yes	
		Manufacturer		
		Model	ULXTE-12	
		Transmitter Type	Solid State	
		Solid State Cooling	Liquid Cooled	
		Solid State Power capacity	8.5 kW	
		Justification for New Transmitter	Retuning high-power IOT transmitter from ch.43 to 31 requires a new IOT, new circuit assemblies, "additional costs for sustaining engineering" and exceeds the cost of a properly sized solid- state transmitter. Please see retune quote and letter attached.	

Primary	Other Transmitter Costs		
Transmitter	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	Yes
		Description	45 kVA 480v to 208v transformer, includes conduit and primary wiring to main transmitter
	HVAC Service	Does the replacement transmitter require HVAC Service?	No
		Туре	N/A
		Size	N/A
		Other Size	N/A
	Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
		Size	N/A
	Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
		Is a channel 14 Mask Filer needed?	N/A
		Is additional field engineering time needed?	N/A
		Number of Days	N/A

Other Transmitter Cost Not Listed

Primary	Other Transmitter Cost Not Listed		
Transmitter	Name	Description	
	Conduit and wiring - pump and heat exchanger	Install circuits, conduit and wiring for coolant pump and heat exchanger	
	Control cable	Control cable for switch to controller interconnection	
	Coaxial switch	Indoor 4-port 3-1/8" coax antenna line switch to switch between main & aux transmitters	
	Copper tubing and fittings	Additional lengths of copper coolant tubing and fittings for extended run to outdoor heat exchanger	
	Dummy Load	Indoor air-cooled broadband dummy load	
	Coaxial switch controller	Controller for coaxial switch	

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

Existing Antenna Information

Primary

Antenna	Section	Question	Response
	Existing Antenna Description	Type of change	Retune Existing
		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?	No
		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	Top Mount
		Antenna position in stack	Not in Stack
		Polarization	Horizontal
		Туре	Broadband Panel
		Number of Stations Supported	1
		Number of Panels	16
		Design power capacity in use	10.0 %
		Lower Limit	470.00 MHz

Upper Limit	806.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	175.0 kW
Manufacturer	Dielectric
Model	TUC-05-16 /80H-1
Year	2002

Primary Adjustment to Existing Antenna

Section	Question	Response
Sweep Test of Existing Antenna	Do you need a sweep test of existing antenna?	Yes

Primary Other Antenna Costs

Antenna

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	

Primary Other Antenna Cost Not Listed

Antenna	Name	Description
	Test transition assembly	Broadband test assembly for initial transmission line & antenna sweep and post channel change sweep & tune, 6-1/8" to Type-N 50 ohm.

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

Existing Transmission Line Primary Existing Transmission

nissior	Section	Question	Response
	Existing Transmission Line Description	Type of change	Utilize Existing
		Use	Primary (Main)
		Description of Use	N/A
		Ownership	Owned
		Owner	N/A
		Site	N/A
Existing Transmission		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	Dielectric
		Туре	Rigid
		Diameter	8 3/16 inches
		Other Diameter	N/A
		Segment Length	Broadband
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	1100 feet per run

Other Transmission Line Expenses Not Listed Transmission Line Descript

Naine	Description
Adapter-transformer	6-1/8" 75 Ohm to 3-1/8" 50 Ohm transmission line adapter/transformer
Reducer assembly	8-3/16" to 6-1/8" indoor transmission line reducer assembly
Connector	Qty (4) 3-1/8" transmission line connectors
Coupling	Qty. (6) 3-1/8" indoor transmission line couplings
Field Flange adapter	Qty. (4) 3-1/8" field EIA flange to unflanged adapters
Indoor transmission line	Qty. (7) 10ft. lengths 3-1/8" unflanged transmission line
Kit, RF Line	Qty (2) 3-1/8" 50 Ohm indoor transmission line and fittings kit. One for each transmitter
Pipe Hanger Assembly	Qty. (15) 3.5 Pipe hanger assemblies with insulators

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

Primary	Existing Tower

Primary	_		
Tower	Section	Question	Response
	Existing Tower Description	Type of change	Modify Existing
		Tower Use	Primary (Main)
		Description of Use	N/A
		Ownership	Owned
		Is this tower consider Complex?	No
		Is this tower currently shared with any other stations?	Yes
		One or more FM, AM or TV radio broadcaster(s)	Yes
		Others Types of Users	Yes
		Is tower documented for structural analysis?	Yes
		Is tower compliant with Rev G?	Unknown
	Existing Tower Structure	Do you have a tower registration number?	Yes
	Registration	ASR Number	1033433
	Coordinates (<u>NAD83</u> (North American Datum of 1983))	Latitude (NAD83)	43° 01' 48.2" N-
		Longitude (NAD83)	078° 55' 14.1" W-
		Overall Structure Height	1133.84 feet
		Support Structure Height	1067.90 feet
		Ground Elevation Above Mean Sea Level (AMSL)	577.09 feet
			1

Structure Type	TOWER - Free Standing or Guyed Structure
Tower Owner	Western New York Public Broadcasting Assocation
Date Constructed	01/01/1986

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 71905 WNLO DTV

Other Types of Users

Users

LPFM

Microwave relay

Tower Modification Costs Primary

Tower

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

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

Primary Tower Mame

Name	Description
Rigging	Crew mobilization, winch, rig & unrig tower to facilitate transmission line and elbow complex retuning (Item #2 on Warmus & Associates quote attached).

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

	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	No
RF Field Engineering Services	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	Yes
	Number of Days	7
		,

Justification	Disassemble
	&
	deconstruct
	old high-
	power,
	channel-
	specific RF
	systems &
	plumbing.
	Tune and
	optimize
	antenna,
	elbow
	complex &
	line
	sections.
	Post-
	transition
	sweep test
	of entire
	system
	following
	retuning.
	Issue report
	See vendor
	quote items
	3 & 4
	attached

Outside	Other Professional Services Expenses Not Listed		
Professional	Services Costs	Description	
	Misc. repack legal services and fees	Misc. legal costs & fees associated with repack	

Other	Section	Question	Response
Expenses	AM Pattern Disturbance	Is an Impact Study needed?	No
		Is Remediation needed?	No
	Facility Expenses	Name	N/A
		Other Distributed Transmission System Expenses Not listed	N/A
		Name	N/A
		Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
	Permit and Filing Costs	Local Zoning	No
		Non-zoning permits	No
		BLM or NFS Coordination	No
		FCC Construction Permit Minor Change	No
		FCC License to Cover Application	No
		FCC Special Temporary Authority Application	No
	Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
		Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	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-12	\$526,418.36	\$299,337.21		\$269,948.48	
Dummy Load	\$12,122.77	\$12,122.77	Vendor price reduction	\$12,122.77	N/A
Copper tubing and fittings	\$1,113.70	\$1,113.70	Cost represents 1/2 of GatesAir Change Order-1 attached.	\$1,113.70	N/A
Conduit and wiring - pump and heat exchanger	\$2,616.00	\$2,616.00	Cost represents 1/2 of MJM Electric Quote # 1594 attached.	\$2,616.00	N/A
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	\$494,500.00	\$267,418.85	N/A	\$238,030.12	N/A
Control cable	\$253.44	\$253.44	N/A	\$253.44	N/A
Coaxial switch	\$4,800.95	\$4,800.95	Vendor price reduction	\$4,800.95	N/A
Coaxial switch controller	\$3,408.00	\$3,408.00	Vendor price increase	\$3,408.00	N/A

Other Electrical Service: 45 kVA 480v to 208v transformer, includes	\$7,603.50	\$7,603.50	represents 1/2 of MJM Electric Quote # 1593 attached.		
conduit and primary wiring to main transmitter					
Auxiliary Transmitter ULXTE-12	\$505,833.20	\$277,979.65		\$248,590.92	
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	\$494,500.00	\$266,646.45	N/A	\$237,257.72	N/A
Conduit and wiring - pump and heat exchanger	\$2,616.00	\$2,616.00	Cost represents 1/2 of MJM Electric Quote # 1594 attached.	\$2,616.00	N/A
Copper tubing and fittings	\$1,113.70	\$1,113.70	Cost represents 1/2 of GatesAir Change Order-1 attached.	\$1,113.70	N/A
Other Electrical Service: 45 kVA 480v to 208v transformer, includes conduit and primary wiring to auxiliary	\$7,603.50	\$7,603.50	Cost represents 1/2 of MJM Electric Quote # 1593 attached.	\$7,603.50	N/A

Sub-total	\$1,032,251.56	\$577,316.86	N/A	\$518,539.40	N/A
Total for all systems	\$1,387,361.08	\$712,696.38	N/A	\$578,748.50	N/A

Components

Actual Information	
Description	File Name

Component Description:	Amount represents 2nd 1/3 payment for the Dummy Load, item #21 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
Amount:	\$4,040.92
Component Description:	Amount represents 1/3 down payment for the Dummy Load, item #21 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items. \$4,040.92
Component Description:	Amount represents final 1/3 payment for the Dummy Load, item #21 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached).
Amount:	\$4,040.93

Dummy Load

Copper tubing and fittings		
	Component Description: Amount:	Amount represents 1/2 GatesAir change order #1 (Q-83408) - addl. copper tubing & accessories - attached \$1,113.70
Conduit and wiring - pump and heat exchanger	Component Description: Amount:	Cost represents 1 /2 of total on invoice #16957 for electrical work to install circuits for coolant pumps and heat exhangers \$2,616.00
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	Component Description:	Amt. represents 2nd 1/3 pmt. prior to shipment, inv. #JW30004673-2 for (1) UHF Solid State transmitter, incl. qty.(1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12-16 and 1/2 of item 27 on GatesAir quote Q- 81639 (WNED-TV ULXTE-12MA4-24 attached) \$89,139.62

Component Description:	Amt. represents 1
	/3 down payment
	per invoice
	#JW30004673-1
	for (1) UHF Solid
	State transmitter,
	incl. qty.(1) of
	items 1-10, qty.(4)
	of item 11, qty.(1)
	of items 12-16 and
	1/2 of item 27 on
	GatesAir quote Q-
	81639 (WNED-TV ULXTE-12MA4-24
	attached)
Amount:	\$89,139.62
Amount.	φ09,139.02
Component Description	Amt roprocente
Component Description:	Amt. represents
Component Description:	remaining payment
Component Description:	remaining payment (without installation
Component Description:	remaining payment (without installation charge) for (1)
Component Description:	remaining payment (without installation
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty.
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10,
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10, qty.(4) of item 11,
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12-
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12- 16 on GatesAir
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12- 16 on GatesAir quote Q-81639
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12- 16 on GatesAir quote Q-81639 (WNED-TV ULXTE-
Component Description:	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12- 16 on GatesAir quote Q-81639 (WNED-TV ULXTE- 12MA4-24
	remaining payment (without installation charge) for (1) UHF Solid State transmitter (Primary) incl. qty. (1) of items 1-10, qty.(4) of item 11, qty.(1) of items 12- 16 on GatesAir quote Q-81639 (WNED-TV ULXTE- 12MA4-24 attached).

Component Description:	Amount represents 2nd 1/3 payment for the Control Cable, item #19 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items \$84.48
Component Description:	Amount represents 1/3 down payment for the Control Cable, item #19 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items. \$84.48
Component Description:	Amount represents final 1/3 payment for the Control Cable, item #19 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached).
Amount:	\$84.48
	Amount: Amount: Amount: Component Description:

Control cable

Component Description:	Amount represents 2nd 1/3 payment for the coaxial switch, item #17 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items \$1,600.32
	¢ ,,,,,,,
Component Description:	Amount represents 1/3 down payment for the Coaxial switch, item #17 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items. \$1,600.32
Component Description:	Amount represents final 1/3 payment for the coaxial switch, item #17 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached).
Amount:	\$1,600.31

Coaxial switch

Component Description:	Amount represents 2nd 1/3 payment for the Coaxial switch controller, item #18 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
Amount:	\$1,136.00
Component Description:	Amount represents 1/3 down payment for the Coaxial
	switch controller, item #18 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1
	which is for the total 1/3 down payment required on all items.
Amount:	\$1,136.00
Component Description:	Amount represents final 1/3 payment for the coaxial switch controller, item #18 on GatesAir quote #Q-
Amount:	81639 (WNED-TV ULXTE-12MA4-24 attached). \$1,136.00

Coaxial switch controller

Other Electrical Service: 45 kVA 480v to 208v transformer, includes conduit and primary wiring to main transmitter	Component Description:	Cost represents 1 /2 of remaining balance due, MJM Electric invoice #16954 for installation of power transformers and transmitter primary wiring
	Amount:	\$4,753.50
	Component Description:	1/2 cost of partial payment for materials and installation per MJM Electric quote #1593 attached
	Amount:	\$2,850.00
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	Component Description:	Amt. represents 2nd 1/3 pmt. prior to shipment, inv. JW30004673-2 for Aux. Transmitter, inc. qty.(1) of items 1-8, qty.(1) of item 10, qty.(4) of item 11, qty.(1) of items 13-16 and 1/2 of item 27 on GatesAir quote Q- 81639 (WNED-TV ULXTE-12MA4-24 attached) \$88,882.15

	Component Description:	Amt. represents 1
		/3 down pmt. per
		invoice
		#JW30004673-1
		for the Aux.
		Transmitter, inc.
		qty.(1) of items 1-8,
		qty.(1) of item 10,
		qty.(4) of item 11,
		qty.(1) of items 13-
		16 and 1/2 of item
		27 on GatesAir
		quote #Q-81639
		(WNED-TV ULXTE-
		12MA4-24
		attached)
	Amount:	\$88,882.15
	Component Description:	Amt. represents
		remaining payment
		(without installation
		charge) for Aux.
		Transmitter, inc.
		qty.(1) of items 1-8,
		qty.(1) of item 10,
		qty.(4) of item 11,
		qty.(1) of items 13-
		16 on GatesAir
		quote Q-81639
		(WNED-TV ULXTE-
		12MA4-24
		attached)
	Amount:	\$59,493.42
Conduit and wiring - pump		
and heat exchanger	Component Description:	Cost represents 1
		/2 of total on
		invoice #16957 for
		electrical work to
		install circuits for
		coolant pumps and
		heat exhangers
	Amount:	\$2,616.00

Copper tubing and fittings		
	Component Description: Amount:	Amount represents 1/2 GatesAir change order #1 (Q-83408) - addl. copper tubing & accessories - attached \$1,113.70
Other Electrical Service: 45 kVA 480v to 208v transformer, includes conduit and primary wiring to auxiliary transmitter	Component Description:	Cost represents 1 /2 of remaining balance due, MJM Electric invoice #16954 for installation of power transformers and transmitter primary wiring \$4,753.50
	Component Description: Amount:	1/2 cost of partial payment for materials and installation per MJM Electric quote #1593 attached \$2,850.00

Antennas

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna TUC-05-16 /80H-1	\$10,457.92	\$10,127.92		\$6,071.07	
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$2,343.15	N/A
Test transition assembly	\$3,727.92	\$3,727.92	N/A	\$3,727.92	N/A
Sub-total	\$10,457.92	\$10,127.92	N/A	\$6,071.07	N/A
Total for all systems	\$1,387,361.08	\$712,696.38	N/A	\$578,748.50	N/A

Components

Actual Information Description	File Name	
Sweep test of existing antenna	Component Description: Amount:	Sweep test of existing antenna & line \$2,343.15
Test transition assembly	Component Description: Amount:	Test transition assembly, item #2 on invoice, includes 1/2 of total shipping cost \$3,727.92

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
Primary Transmission Line	\$23,476.60	\$23,476.60		\$23,476.60	
Pipe Hanger Assembly	\$101.55	\$101.55	N/A	\$101.55	N/A
Kit, RF Line	\$11,886.40	\$11,886.40	N/A	\$11,886.40	N/A
Indoor transmission line	\$3,393.39	\$3,393.39	N/A	\$3,393.39	N/A
Field Flange adapter	\$762.00	\$762.00	N/A	\$762.00	N/A

Adapter- transformer	\$2,676.24	\$2,676.24	Vendor (Dielectric) price increased from original 2017 quote (#45508 WNED indoor	\$2,676.24	Orig. estimate from quote #45508 item #1 (attached- 45508 WNED indoor
			transmission line, item #1 - attached). Actual shipping cost of \$46.44 was less than original estimate of \$269.71.		transmission line) was \$2337.60 plus \$269.71 est. shipping. Vendor raised the price to \$2629.80, partially offset by lower than
					est. shipping of \$46.44 for a new subtotal of \$2676.24
Coupling	\$1,480.50	\$1,480.50	N/A	\$1,480.50	N/A
Connector	\$243.00	\$243.00	N/A	\$243.00	N/A
Reducer assembly	\$2,933.52	\$2,933.52	N/A	\$2,933.52	N/A
Sub-total	\$23,476.60	\$23,476.60	N/A	\$23,476.60	N/A
Total for all systems	\$1,387,361.08	\$712,696.38	N/A	\$578,748.50	N/A

Components

Description	File Name		
Pipe Hanger Assembly			

Component Description:	Amount represents 2nd 1/3 payment for qty. (15) Pipe Hanger Assemblies, item #26 on GatesAir quote #Q-81639 (WNED-TV ULXTE- 12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
Amount:	\$33.85
Component Description:	Amount represents 1/3 down payment for qty. (15) Pipe Hanger Assemblies, item #26 on GatesAir quote #Q-81639 (WNED-TV ULXTE- 12MA4-24 attached), part of
	GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items.
Amount:	\$33.85

Component Description:	Amount represents final 1/3 payment for qty. (15) Pipe Hanger Assemblies, item #26 on GatesAir quote #Q-81639 (WNED-TV ULXTE- 12MA4-24 attached). \$33.85

Component Description:	Amount represents 2nd 1/3 payment for qty. (2) RF Line kits, item #20 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
Amount:	\$3,962.13
Component Description:	Amount represents 1/3 down payment for qty. (2) RF Line kits, item #20 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items. \$3,962.13
Component Description:	Amount represents Final 1/3 payment for qty. (2) RF Line kits, item #20 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached).
Amount:	\$3,962.14

Kit, RF Line

Component Description:	Amount represents 2nd 1/3 payment for qty. (7) Indoor Transmission Line 10 ft., item #22 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
Amount:	\$1,131.13
Component Description:	Amount represents
Amount:	1/3 down payment for qty. (7) Indoor Transmission Line 10 ft., item #22 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items. \$1,131.13
Component Description:	Amount represents Final 1/3 payment for qty. (7) Indoor Transmission Line 10 ft., item #22 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached). \$1,131.13

Indoor transmission line

Component Description:	Amount represents 2nd 1/3 payment for qty.(4) Field Flange adapters, item #24 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items \$254.00
Component Description:	Amount represents 1/3 down payment for qty.(4) Field Flange adapters, item #24 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items. \$254.00
Component Description:	Amount represents Final 1/3 payment for qty.(4) Field Flange adapters, item #24 on GatesAir quote #Q- 81639 (WNED-TV ULXTE-12MA4-24 attached). \$254.00

Field Flange adapter

Adapter-transformer		
	Component Description:	Qty.(1) Adapter-
		Transformer as per
		Dielectric quote
		#1698741 dated 4
		/12/2019 attached
	Amount:	\$2,629.80
	Component Description:	Shipping &
		handling, Dielectric
		Adapter-
		Transformer.
	Amount:	\$46.44

Component Description:	Amount represents 2nd 1/3 payment for qty. (6) 3-1/8" couplings, item #23 on GatesAir quote #Q-81639 (WNED- TV ULXTE-12MA4- 24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items
Amount:	\$493.50
Component Description:	Amount represents 1/3 down payment for qty. (6) 3-1/8" couplings, item #23 on GatesAir quote #Q-81639 (WNED- TV ULXTE-12MA4- 24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items. \$493.50
Component Description:	Amount represents Final 1/3 payment for qty. (6) 3-1/8" couplings, item #23 on GatesAir quote #Q-81639 (WNED- TV ULXTE-12MA4- 24 attached).
Amount:	\$493.50

Coupling

Component Description:	Amount represents 2nd 1/3 payment for qty. (4) 3-1/8" connectors, item #25 on GatesAir quote #Q-81639 (WNED-TV ULXTE- 12MA4-24 attached), part of GatesAir invoice #JW30004673-2 for the next 1/3 payment due prior to shipment for all items \$81.00
Component Description:	Amount represents 1/3 down payment for qty. (4) 3-1/8" connectors, item #25 on GatesAir quote #Q-81639 (WNED-TV ULXTE- 12MA4-24 attached), part of GatesAir invoice #JW30004673-1 which is for the total 1/3 down payment required on all items. \$81.00
Component Description:	Amount represents Final 1/3 payment for qty. (4) 3-1/8" connectors, item #25 on GatesAir quote #Q-81639 (WNED-TV ULXTE- 12MA4-24 attached). \$81.00

Connector

Reducer assembly		
	Component Description:	Reducer assembly,
		item #1 on invoice,
		includes 1/2 of total
		shipping cost
	Amount:	\$2,933.52

Tower Equipment and Rigging Costs

Cost Information

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$231,600.00	\$21,100.00		\$0.00	
Tall Tower (greater than 500')	\$210,500.00	\$0.00	N/A	N/A	N/A
Rigging	\$21,100.00	\$21,100.00	N/A	N/A	N/A
Sub-total	\$231,600.00	\$21,100.00	N/A	\$0.00	N/A
Total for all systems	\$1,387,361.08	\$712,696.38	N/A	\$578,748.50	N/A

Components

Information not provided.

Outside Professional Services

Cost Information

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

	Predetermined	Estimated	Estimated Cost		Actual Cost
Description	Cost Estimate	Cost	Justification	Actual Cost	Justification
Outside Professional Services	\$61,775.00	\$60,675.00		\$25,170.93	
Misc. repack legal services and fees	\$2,500.00	\$2,500.00	N/A	\$516.00	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	\$735.00	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	\$3,175.00	Included engineering study and calculation of transmission system losses on post repack channel in order to insure accuracy

Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	\$423.00	N/A
Additional Field Engineering Service, 7 Days	\$36,925.00	\$36,925.00	5 days, \$5275 /day f/5-man crew for disassembly & deconstruction of old high- power channel- specific RF systems & plumbing. 2 days, \$5275 /day f/5-man crew to tune & optimize antenna/line & conduct post- transition sweep. See vendor quote items 3 & 4 attached	\$20,321.93	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	\$61,775.00	\$60,675.00	N/A	\$25,170.93	N/A
Total for all systems	\$1,387,361.08	\$712,696.38	N/A	\$578,748.50	N/A

Actual Information Description	File Name	
Misc. repack legal services and fees	Component Description: Amount:	Legal fee - repacking services - prepare and send client transition schedule timetable for repack \$300.00
	Component Description: Amount:	Repack Services Legal Fees - health care notice public file and phase transition report guidance \$216.00
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Component Description: Amount:	Review, preparation and filing of Construction Permit application. Reflects items 1-3 on invoice. \$735.00
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Component Description:	Engineering study /evaluation and preparation of Construction Permit Application - engineering section
	Amount:	\$3,175.00

Perform engineering study for new channel assignment and antenna development	Information not provided.	
Prepare and or review reimbursement form	Component Description:	Review and file FCC form 399. Reflects items 4 & 5 on invoice
	Amount:	\$423.00
Additional Field Engineering		
Service, 7 Days	Component Description:	Additional field engineering services, Warmus
		& Associates original quote
	Amount:	#TS17-039 Item #3 (partial). \$20,321.93
	Amount.	ФZU,3Z1.93
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	\$27,800.00	\$20,000.00		\$5,490.50	
MVPD Notification of Channel Change	\$1,250.00	\$1,250.00	Please see RF Notifications Quote # LS- 20190901- A attached	\$1,250.00	N/A
Develop and air announcement of upcoming channel change	\$2,500.00	\$2,500.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	\$7,500.00	\$7,500.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$3,750.00	Please see RF Notifications Quote # LS- 20190801- A attached.	\$3,750.00	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$5,000.00	\$5,000.00	N/A	\$490.50	N/A
Sub-total	\$27,800.00	\$20,000.00	N/A	\$5,490.50	N/A
Total for all systems	\$1,387,361.08	\$712,696.38	N/A	\$578,748.50	N/A

Components

Description	File Name	
MVPD Notification of		
Channel Change	Component Description:	MVPD Notifications per RF Notifications quote# LS- 20190901-A attached \$1,250.00
	Anount.	ψ1,230.00
Develop and air announcement of upcoming channel change	Information not provided.	
Equipment Delivery and Handling Charges	Information not provided.	
DTV Medical Facility Notification		
Notification	Component Description:	Medical notification servic per RF Notifications quot # LS-20190801-A
	Amount:	attached \$3,750.00
Disposal Costs (for equipment and other waste,		
net of any salvage value)	Component Description:	Dumpster service for disposal of construction debr
	Amount:	\$350.00
	Component Description:	Liquid disposal services
		Services

Cost Information	Grand Total					
		Predetermined Cost Estimate	Estimated Cost	Actual Cost		
	Total for all systems	\$1,387,361.08	\$712,696.38	\$578,748.50		

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. 	
		2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	
		3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

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

8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.	
I declare, under penalty of perjury, that I am an authorized representative of the above- named applicant for the Authorization(s) specified above.	Joseph Puma Vice President Engineering and Technology

Certification	Section	tion Question	
	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.	Joseph Puma Vice President Engineering and Technology
		02/28/2020

Attachments