



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **53859** | Service: **DTS** | Call **WIPR-TV** | Channel: **26 (UHF)** |  
ID: | Sign:  
File **0000028582**  
Number:  
FRN: **0005832233** | Date **09/05**  
Submitted: **/2017**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>PUERTO RICO PUBLIC BROADCASTING CORPORATION</b> Doing Business As: PUERTO RICO PUBLIC BROADCASTING CORPORATION	Dr. Rafael Batista Cruz PO Box 190909 Urb. Baldrich SAN JUAN, PR 00918 United States	+1 (787) 766-0505	Avazquez@wipr.pr	Government Entity

## Reimbursement Contact Information

### Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

## Preparer Contact Information

### Preparer Contact Name and Information

Applicant	Address	Phone	Email
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<b>Alejandro Luciano</b> <i>Consulting Engineer</i> <i>Puerto Rico Public Broadcasting Corporation</i>	Alejandro Luciano PE PO Box 194528 SAN JUAN, PR 00919 United States	+1 (787) 717-6984	aluciano@aluciano.com
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**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.	Yes
Briefly describe transition plan	File for CP as needed, Perform Towers Structural Study, modify tower as needed, build Interim facilities, remove existing transmitter, install new transmitter, transmission line, combiner, splitter, new antennas. sweep antennas test and transition.

**Transmitters**

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

**Auxiliary Transmitter**

**Add Transmitter Information**

Section	Question	Response
Existing Transmitter Description	Type of change	Retune Existing
	Use	Auxiliary (Backup)
	Ownership	Owned

	Owner	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	Harris
	Model	Maxiva UAX1000AT
	Year	2012
	Type	Solid State
	Solid State Cooling	Air Cooled
	Solid State Power capacity	1.0 kW

### Auxiliary Transmitter

#### Retuning Transmitter Costs

Section	Question	Response
<b>New IOT Tubes</b>	Number of Tubes (including accessories) needed	N/A
<b>New Mask Filter</b>	Power	1.5 kW
	Other Power	N/A
<b>New Exciter</b>	Is a new exciter needed?	No

### Auxiliary Transmitter

#### Other Transmitter Costs

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

**Auxiliary Transmitter**      **Other Transmitter Cost Not Listed**  
Information not provided.

**Primary  
Transmitter**

**Existing Transmitter Information**

Section	Question	Response
<b>Existing Transmitter Description</b>	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	1
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	Power CD
	Year	2009
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	60 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?	Yes
	Manufacturer	
	Model	Parallax
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	50 kW
	Justification for New Transmitter	GatesAir, indicates the cost of the modifications of the IOT transmitters plus rental of similar power transmitter to remain on the air will exceed the cost of a new S.S. transmitter. Documents attesting the above will be submitted as soon as received

**Primary  
Transmitter**

**Other Transmitter Costs**

Section	Question	Response
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<b>Electrical Service</b>	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	No
	Transformer (480V)	No
	Power	N/A
	Rigid Conduit and Wiring	Yes
	Size	2 inches
	Length	300.0 feet
	Other Electrical Service	Yes
	Description	Panel Main Breaker and disconnect switches fro transmitter, cooling pumps and heat exchangers.
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	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

<b>Primary</b>	<b>Other Transmitter Cost Not Listed</b>
<b>Transmitter</b>	Information not provided.



**Interim  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Interim
	Description of Use	N/A
	Change Type	Purchase
	Manufacturer	
	Model	Parallax
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	10.0 kW
	Justification for New Transmitter	An interim transmitter is needed for WAPA-TV while the shared transmission line combiner /splitter system is removed and the present transmission line is reconnected to the WAPA-TV transmitter and antenna.

**Interim  
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	Yes
	Size	2 inches
	Length	200.0 feet
	Other Electrical Service	Yes
	Description	Main Panel Breaker and Disconnect Switch for transmitter, cooling pump and heat exchanger
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	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
<b>Inside RF System</b>	Is an additional interior RF system required to support this interim transmitter?	No

Interim	Other Transmitter Cost Not Listed
Transmitter	Information not provided.

**Antennas**

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

**Primary  
Antenna**

**Existing Antenna Information**

Section	Question	Response
<b>Existing Antenna Description</b>	Type of change	Purchase New
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	1
	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
<b>Existing Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels	N/A
	Design power capacity in use	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power) .....	762.0 kW

Manufacturer	
Model	26JSC-R CT150SP
Year	2008

**Primary  
Antenna**

**New Antenna Costs**

Section	Question	Response
<b>New Antenna Description</b>	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	No
<b>New Antenna Manufacturer and Types</b>	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Elliptical
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels/Bays	N/A
	Lower Limit	N/A
	Upper Limit	N/A
	Design power capacity in use	N/A
	Other Antenna Type	N/A
	ERP: (Effective Radiated Power) .....	561.0 kW
	Manufacturer	

Model	TFU-26JSC /VP-R CT150
Year	2017
Justification for New Antenna	The existing antenna is on channel 43, Dielectric the manufacturer indicates is not feasible to tune the channel 43 antenna to channel 26, WIPR repack assigned channel.

**Primary  
Antenna**

**Other Antenna Costs**

Section	Question	Response
<b>Combiner for Shared Antenna</b>	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	N/A
	Do you need a combiner output splitter /switcher for dual feed lines?	N/A
<b>Elbow Complex</b>	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	Single Channel
	Feed Line Size	7 3/16 inches inches



<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	Yes
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes

## Primary Antenna

### Other Antenna Cost Not Listed

Name	Description
<b>WIPR-FM 2 Bays Interim Antenna</b>	2 Bays Interim Antenna for WIPR-FM
<b>WIPR-FM 8 Bays FM Antenna High Power 125 kW</b>	To modify the existing tower for TIA 222 Rev G. compliance it is necessary to remove several components from the tower including the WIPR-FM Panel antenna and transmission line and replace with a lighter antenna and combined transmission line..

**Interim  
Antenna**

**New Antenna Costs**

Section	Question	Response
<b>New Antenna Description</b>	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
<b>New Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Other
	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	Broadband Panel Array
	ERP: (Effective Radiated Power) .....	250.0 kW
	Manufacturer	
	Model	773332
	Year	2018

	Justification for New Antenna	An interim antenna is needed for WIPR-TV to remain on air while the present combiner /splitter system is removed, WIPR Ch. 43 Antenna is replaced and existing WAPA antenna and transmitter are reconnected.
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## Interim Antenna

### Other Antenna Costs

Section	Question	Response
<b>Elbow Complex</b>	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	B
	Feed Line Size	4 1/16 inches
<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for an antenna?	No
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes

Interim  
Antenna

Other Antenna Cost Not Listed

Information not provided.

Interim  
Antenna

New Antenna Costs

Section	Question	Response
New Antenna Description	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Ownership	Owned
	Owner	N/A
	Is antenna shared?	No
	Is antenna directional?	Yes
	Will antenna be located on or in close proximity to an antenna farm?	Yes
New Antenna Manufacturer and Type	Class	Full Power
	Mounting	Side Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Slotted Coaxial
	Number of Stations Supported	N/A
	Number of Panels/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) .....	260.0 kW
	Manufacturer	

Model	ALP24M6-HSW-27
Year	2018
Justification for New Antenna	An interim antenna is needed for WAPA-TV to remain on the air while the existing combiner /splitter system is removed, the WIPR Antenna is replaced and the existing WAPA antenna and transmitter are reconnected.

## Interim Antenna

### Other Antenna Costs

Section	Question	Response
<b>Elbow Complex</b>	Do you require the separate purchase of the Elbow Complex?	Yes
	Broadband or Single Channel?	S
	Feed Line Size	4 1/16 inches
<b>Side Mount Brackets</b>	Do you require the separate purchase of side mount brackets for an antenna?	Yes
<b>Pattern Scatter Analysis</b>	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No

<b>Sweep Test</b>	Do you require the sweep testing of transmission line and antenna?	Yes
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**Interim  
Antenna**

**Other Antenna Cost Not Listed**

Information not provided.

**Transmission Line**

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

**Primary  
Transmission Line**

**Existing Transmission Line**

Section	Question	Response
<b>Existing Transmission Line Description</b>	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	Owner	Televicentro LLC
	Site	1
	Is the existing transmission line shared with another station or stations?	Yes
	Is Transmission Line in operating condition?	Yes
<b>Existing Transmission Line Manufacturer and Type</b>	Manufacturer	
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	20 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1000 feet per run

**Facility ID's and Call Signs of all stations with whom the transmission line is shared.**

Facility ID	Call Sign
52073	WAPA-TV



Primary  
Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Primary (Main)
	Description of Use	N/A
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Type	Rigid
	Diameter	7 3/16 inches
	Other Diameter	N/A
	Segment Length	19 1/2 inches
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1000 feet per run

Justification for New Transmission Line	The existing shared transmission line belong to WAPA-TV, that station operates non DA, and it's line section of 20' are a prohibited length for operation in channel 26. Also it is not possible to build a splitter for adjacent channels operation.
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**Primary Transmission Line**      **Other Transmission Line Expenses Not Listed**  
Information not provided.

**Interim  
Transmission Line**

**New Transmission Line**

Section	Question	Response
<b>New Transmission Line Costs</b>	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	Flexible Air
	Diameter	4 inches
	Segment Length	N/A
	Other Segment Length	
	Number of parallel runs	1
	Length	550 feet per run
	Justification for New Transmission Line	An interim transmission line is needed for WIPR-TV to remain on the air while the existing combiner splitter system is removed, the present WIPR antenna is replaced, and the existing WAPA antenna and transmitter are recombined.

Interim

Other Transmission Line Expenses Not Listed

Transmission Line

Information not provided.

Interim

New Transmission Line

Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	Flexible Air
	Diameter	4 inches
	Segment Length	N/A
	Other Segment Length	
	Number of parallel runs	1
	Length	600 feet per run
	Justification for New Transmission Line	An interim transmission line is needed for WAPA-TV to remain on the air while the existing combiner /splitter system is removed and the existing WAPA antenna and transmitter are reconnected.

Interim  
Transmission Line

Other Transmission Line Expenses Not Listed

Information not provided.

Interim  
Transmission Line

New Transmission Line

Section	Question	Response
New Transmission Line Costs	Use	Interim
	Description of Use	N/A
	Change Type	Purchase New
	Type	Flexible Air
	Diameter	3 inches
	Segment Length	N/A
	Other Segment Length	
	Number of parallel runs	1
	Length	450 feet per run
	Justification for New Transmission Line	An interim transmission line is needed for WIPR-FM to remain on the air while the existing WIPR-FM panel antenna system and transmission line are removed to reduce approximately a 5 tons weight load from the present antenna and transmission line.

Interim	Other Transmission Line Expenses Not Listed
Transmission Line	Information not provided.

**Tower  
Equipment  
And  
Rigging  
Costs**

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

**Primary  
Tower**

**Existing Tower**

Section	Question	Response
Existing Tower Description	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Leased
	Is this tower consider Complex?	Terrain Constrained
	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 documented for structural analysis?	Yes
	Is tower compliant with Rev G?	No
Existing Tower Structure Registration	Do you have a tower registration number?	Yes
	ASR Number	1010730
Coordinates (NAD83 ( North American Datum of 1983))	Latitude (NAD83)	18° 06' 35.0" N-
	Longitude (NAD83)	066° 03' 04.0" W-
	Overall Structure Height	1090.87 feet
	Support Structure Height	1006.88 feet

	Ground Elevation Above Mean Sea Level (AMSL)	2955.02 feet
	Structure Type	TOWER - Free Standing or Guyed Structure
	Tower Owner	Televiscentro of Puerto Rico, LLC
	Date Constructed	07/01/1966

**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
52073	WAPA-TV	DTV
53860	WIPR-FM	FM

## 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:	Serious Reinforcements needed

## Primary Tower

### Tower Rigging Costs

Section	Question	Response
Tower Rigging Costs	Complex Tower	Terrain constrained



<b>Helicopter Services Required</b>	Are helicopter services required?	No
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**Primary  
Tower**

**Other Tower Expenses Not Listed**

Information not provided.

**Outside  
Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	Yes
	Number of Hours	1500
	Explanation	Due to extreme budget constraints WIPR does not have the necessary technical staff to perform the project management for the repack.
<b>Outside RF consulting Engineering Services</b>	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	3
	Do you have Distributed Transmission System engineering services?	No
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A

<b>Attorney and Other Outside Consulting Services</b>	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	3
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	Yes
	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	Yes
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	No
	RF exposure measurements	Yes
	Additional Field Engineering Service	No
	Number of Days	N/A
	Justification	N/A

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Quarterly Progress Reports.	FCC Quarterly Repack Progress Report

## Other Expenses

Section	Question	Response
<b>AM Pattern Disturbance</b>	Is an Impact Study needed?	No
	Is Remediation needed?	No
<b>Facility Expenses</b>	Name	N/A
	Other Distributed Transmission System Expenses Not listed	No
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
<b>Permit and Filing Costs</b>	Local Zoning	Yes
	Non-zoning permits	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	Yes
	FCC License to Cover Application	Yes
	FCC Special Temporary Authority Application	Yes
<b>Other Miscellaneous Expenses</b>	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?	Yes
	Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
	Does this relocation require MVPD Notification of a Channel Change?	Yes

**Other  
Expenses**

**Other Expenses Not Listed**

Name	Description
<b>WIPR-TV-WIPR-FM Combiner-Splitter.</b>	To minimize tower loading as per structural engineer request and to optimize the use of the WIPR-TV transmission line it is proposed to combine the WIPR-TV and WIPR-FM signals on the 7 inch line to be installed for WIPR-TV.
<b>Station Employees Time</b>	Stations Employees time exclusively dedicated to the repack functions
<b>8 poles Adjacent Channel Filter. Two Filters, Two Stations</b>	WIPR-TV and WAPA-TV radiation centers are within 50ft vertically, after repack WIPR will be on Ch. 26 adjacent to WAPA Ch. 27. A filter is needed for both WAPA and WIPR to impede interactions to WAPA and WIPR transmitters from each other emissions.

## 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
<b>Interim Transmitter Parallax</b>	<b>\$517,700.00</b>	<b>\$393,135.00</b>		<b>\$0.00</b>	
2" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$5,000.00	N/A	N/A	N/A
Other Electrical Service: Main Panel Breaker and Disconnect Switch for transmitter, cooling pump and heat exchanger	<i>\$18,000.00</i>	\$18,000.00	As per previous experience during the analog to digital transitions and site remote location.	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	\$494,500.00	\$370,135.00	See Attached Hitachi Comark proposal P#3131PRLXU6-071217R1	N/A	N/A
<b>Primary Transmitter Parallax</b>	<b>\$1,489,800.00</b>	<b>\$891,635.00</b>		<b>\$0.00</b>	
UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW	\$1,473,000.00	\$875,135.00	See Attached Hitachi Comark main transmitter proposal	N/A	N/A

2" Rigid Conduit and Wiring (Cost per foot)	\$7,800.00	\$7,500.00	N/A	N/A	N/A
Other Electrical Service: Panel Main Breaker and disconnect switches for transmitter, cooling pumps and heat exchangers.	<b>\$9,000.00</b>	\$9,000.00	As per previous experience during the analog to digital transitions and site remote location.	N/A	N/A
<b>Auxiliary Transmitter Maxiva UAX1000AT</b>	<b>\$108,230.00</b>	<b>\$102,800.00</b>		<b>\$0.00</b>	
UHF and VHF - minor banding issues	\$105,200.00	\$100,000.00	N/A	N/A	N/A
1.5 kW mask filter	\$3,030.00	\$2,800.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$2,115,730.00</b>	<b>\$1,387,570.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$5,514,513.46</b>	<b>\$4,651,151.46</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>

## Components

Information not provided.



## Cost Information

### Antennas

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Interim Antenna 773332</b>	<b>\$207,180.00</b>	<b>\$196,800.00</b>		<b>\$0.00</b>	
UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	\$189,500.00	\$180,000.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Elbow complex, broadband, at antenna input, per 4 1/16. feedline (if needed)	\$10,950.00	\$10,400.00	N/A	N/A	N/A
<b>Interim Antenna ALP24M6-HSW-27</b>	<b>\$228,950.00</b>	<b>\$217,500.00</b>		<b>\$0.00</b>	
Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	N/A	N/A

Elbow complex, single channel, at antenna input, per 4 1/16. feedline (if needed)	\$9,570.00	\$9,100.00	N/A	N/A	N/A
UHF - Lower Power Side Mount, One station - 200-500 kW, horizontally polarized	\$189,500.00	\$180,000.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
<b>Primary Antenna TFU-26JSC/VP-R CT150</b>	<b>\$304,960.00</b>	<b>\$302,528.00</b>		<b>\$0.00</b>	
WIPR-FM 2 Bays Interim Antenna	<b>\$10,000.00</b>	\$10,000.00	Based on Manufacturer Consultations, Final quote to be provided as soon as received.	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 7 3/16. feedline (if needed)	\$13,900.00	\$13,208.00	Based on Dielectric Elbow Complex Quote	N/A	N/A

Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$22,000.00	N/A	N/A	N/A
Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost)	\$5,260.00	\$5,000.00	N/A	N/A	N/A
WIPR-FM 8 Bays FM Antenna High Power 125 kW	<b>\$48,624.00</b>	\$48,624.00	Based on Attached Dielectric Order Number 45360 Items 4 - 8	N/A	N/A
UHF - High Power, Side Mount, basic slot antenna, 561 kW input, directional,, elliptically or circularly polarized	<b>\$197,296.00</b>	\$197,296.00	Based on attached Dielectric Order Number 45360 Lines 1, 3	N/A	N/A
<b>Sub-total</b>	\$741,090.00	\$716,828.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$5,514,513.46	\$4,651,151.46	N/A	\$0.00	N/A

## Components

Information not provided.

Cost  
Information

Transmission Line

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Interim Transmission Line	\$40,700.00	\$38,500.00		\$0.00	
Flexible Air Transmission Line - dielectric, 4"	\$40,700.00	\$38,500.00	N/A	N/A	N/A
Interim Transmission Line	\$44,400.00	\$42,000.00		\$0.00	
Flexible Air Transmission Line - dielectric, 4"	\$44,400.00	\$42,000.00	N/A	N/A	N/A
Interim Transmission Line	\$26,550.00	\$25,200.00		\$0.00	
Flexible Air Transmission Line - dielectric, 3"	\$26,550.00	\$25,200.00	N/A	N/A	N/A
Primary Transmission Line	\$290,000.00	\$276,000.00		\$0.00	

Rigid Transmission Line - copper, 7 3/16"	\$290,000.00	\$276,000.00	The existing shared transmission line is owned by WAPA, the sections length of 20 ft. are prohibited for channel 26, it is not possible to separate adjacent channels at tower to maintain current setting. See attached RF System diagram.	N/A	N/A
<b>Sub-total</b>	\$401,650.00	\$381,700.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$5,514,513.46	\$4,651,151.46	N/A	\$0.00	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	\$1,485,600.00	\$1,412,000.00		\$0.00	
Complex Tower (includes, for example, those with candelabras and /or stacked antennas)	\$421,000.00	\$400,000.00	N/A	N/A	N/A
Serious tower reinforcement /modifications	\$1,052,000.00	\$1,000,000.00	N/A	N/A	N/A
Structural engineering tower load study for well documented tower	\$12,600.00	\$12,000.00	N/A	N/A	N/A
Sub-total	\$1,485,600.00	\$1,412,000.00	N/A	\$0.00	N/A
Total for all systems	\$5,514,513.46	\$4,651,151.46	N/A	\$0.00	N/A

Components

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
<b>Outside Professional Services</b>	<b>\$308,685.00</b>	<b>\$291,900.00</b>		<b>\$0.00</b>	
Prepare request for Special Temporary Authorization	\$6,150.00	\$4,500.00	N/A	N/A	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	N/A	N/A
Project management of the transition	\$237,000.00	\$225,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File request for Special Temporary Authorization	\$11,040.00	\$10,500.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	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 - Negotiation of lease and other matters for shared locations	\$4,210.00	\$4,000.00	N/A	N/A	N/A
Quarterly Progress Reports.	<b>\$2,150.00</b>	\$2,150.00	Estimated Fee for Quarterly Repack Progress Report Documents preparation and filling.	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	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
Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	N/A	N/A



RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/A
<b>Sub-total</b>	\$308,685.00	\$291,900.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$5,514,513.46	\$4,651,151.46	N/A	\$0.00	N/A

## Components

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 Cost Justification
<b>Other Expenses</b>	<b>\$461,758.46</b>	<b>\$461,153.46</b>		<b>\$0.00</b>	
Station Employees Time	<i>\$90,764.46</i>	\$90,764.46	Estimated amount for station personnel repack dedicated time. See Attached WIPR Personnel Repack Hours Estimate Worksheet.	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$50,000.00</i>	\$50,000.00	See Attached transportation Cost estimates and WIPR Employees Time and Freight Charges Estimate Document.	N/A	N/A

8 poles Adjacent Channel Filter. Two Filters, Two Stations	<b>\$160,000.00</b>	\$160,000.00	Estimated price for two hi power filters (WAPA Ch. 27 and WIPR Ch. 26) based on manufacturer consultation. Final quote price to be provided as soon as received.	N/A	N/A
WIPR-TV- WIPR-FM Combiner- Splitter.	<b>\$99,304.00</b>	\$99,304.00	See already attached Dielectric Order Number 45360 Lines 7-10.	N/A	N/A
MVPD Notification of Channel Change	<b>\$7,000.00</b>	\$7,000.00	Based on previous experience during the analog to digital transition	N/A	N/A
Develop and air announcement of upcoming channel change	<b>\$20,000.00</b>	\$20,000.00	Based on previous experience during the analog to digital transition	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<b>\$4,500.00</b>	\$4,500.00	Based on previous experience during the analog to digital transition.	N/A	N/A

FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
Local Zoning	<b>\$10,000.00</b>	\$10,000.00	Based on previous experience. Local authority estimated fees for tower work permits.	N/A	N/A
Equipment Storage	<b>\$7,000.00</b>	\$7,000.00	Based on previous experience during the analog to digital transition	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
<b>Sub-total</b>	\$461,758.46	\$461,153.46	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$5,514,513.46	\$4,651,151.46	N/A	\$0.00	N/A

## Components

Information not provided.

<b>Cost Information</b>	<b>Grand Total</b>		
		<b>Predetermined Cost Estimate</b>	<b>Estimated Cost</b>
			<b>Actual Cost</b>
	<b>Total for all systems</b>	\$5,514,513.46	\$4,651,151.46
			\$0.00

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

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	<p>WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.</p>	
		<ol style="list-style-type: none"> <li>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.</li> <li>2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>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.</li> </ol>	

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

<p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Alejandro Luciano</b>  <i>Repack Project Manager</i></p> <p>09/05/2017</p>

## Attachments