



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **40618** | Service: **DTV** | Call **WCPB** | Channel: **16 (UHF)**
ID: | Sign:
File **0000027915**
Number:
FRN: **0003857380** | Date **09/28**
Submitted: **/2017**

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
MARYLAND PUBLIC BROADCASTING COMMISSION Doing Business As: MARYLAND PUBLIC BROADCASTING COMMISSION	Larry D. Unger, President & CEO 11767 OWINGS MILLS BOULEVARD OWINGS MILLS, MD 21117 United States	+1 (410) 356- 5600	lunger@mpt. org	Government Entity

Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer Contact Information

Preparer Contact Name and Information

Applicant	Address	Phone	Email
Joseph L. Snelson , Jr . <i>Technical Consultant</i> <i>Meintel, Sgrignoli & Wallace</i>	1282 Smallwood Drive, Suite 372 Waldorf, MD 20603 United States	+1 (303) 344- 8037	joe. snelson@mswdtv. com

**Broadcaster
Information
and
Transition
Plan**

Question	Response
Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
Briefly describe transition plan	Current transmission system consists of a transmitter feeding a transmission line which connects to an antenna on the tower. Work includes installing new transmission line, attaching to antenna and connecting to new repack channel transmitter.

Transmitters

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

**Auxiliary
Transmitter****Add Transmitter Information**

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Auxiliary (Backup)
	Description of Use	Auxiliary use in case of main transmitter failure
	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	TDU2- 10K0LV
	Year	2003
	Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power Capacity	5 kW

**Auxiliary
Transmitter****New Transmitter Costs**

Section	Question	Response
New Transmitter	Use	Auxiliary (Backup)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	Yes
	Manufacturer	
	Model	PRLX-U8
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	13 kW
	Justification for New Transmitter	Current transmitter is not supported for a channel change. See attached Transmitter Replace Justification letter from manufacturer. Power upgrade is part of an agreement provided to the FCC to move WCPB to Ch. 16 to accommodate moving WETA to channel 31.

**Auxiliary
Transmitter****Other Transmitter Costs**

Section	Question	Response
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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	Electrical contractor to connect transmitter into existing electrical panel and wire heat exchanger into transmitter. Includes material and labor.
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Auxiliary
Transmitter

Other Transmitter Cost Not Listed

Name	Description
Rigid Coax Line	Rigid interconnection coax lines from transmitter to filter to antenna switch.
Coolant	The coolant used for the transmitter heat exchanger is not included in the transmitter price
Bag Filter	Bag type water filtration for heat exchanger system.
Remote Control Interface	License required to interface transmitter into current remote control system

**Primary
Transmitter**

Existing Transmitter Information

Section	Question	Response
Existing Transmitter Description	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
Existing Transmitter Manufacturer and Type	Manufacturer	
	Model	TDU2- 10K0LV
	Year	2003
	Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power Capacity	5 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	MPTV-PRLX-U8
	Transmitter Type	Solid State
	Solid State Cooling	Liquid Cooled
	Solid State Power capacity	13 kW
	Justification for New Transmitter	Current transmitter is not supported for a channel change. See attached Transmitter Replace Justification letter from manufacturer. Power upgrade is part of an agreement provided to the FCC to move WCPB to Ch. 16 to accommodate moving WETA to channel 31.

**Primary
Transmitter**

Other Transmitter Costs

Section	Question	Response
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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	Electrical contractor to connect transmitter into existing electrical panel and wire heat exchanger into transmitter. Includes material and labor.
HVAC Service	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Primary
Transmitter**

Other Transmitter Cost Not Listed

Name	Description
Coolant	The coolant used for the transmitter heat exchanger is not included in the transmitter price
Bag Filter	Bag type water filtration for heat exchanger system.
CIF Mask filter	Constant Impedance mask Filter. Station currently utilizes a CIF.
Rigid Coax Line	Rigid interconnection coax lines from transmitter to filter to antenna switch.
Motorized Switch	Electric actuated switch to switch main /auxiliary transmitters into antenna
8-Pole Mask Filter	A more rigid mask filter to protect adjacent land mobile stations on Ch. 17 in Washington DC.
Site Design and Survey	Incorporates all aspects of the transmitter room design, including power distribution requirements, equipment placement, RF system layout, plumbing, and remote control.
Remote Control Interface	License required to interface transmitter into current remote control system

Antennas

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

**Primary
Antenna****Existing Antenna Information**

Section	Question	Response
Existing Antenna Description	Type of change	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?	Yes
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
Existing Antenna Manufacturer and Type	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Top
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	1
	Number of Panels	16
	Design power capacity in use	50.0 %
	Lower Limit	470.00 MHz

Upper Limit	698.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	132.0 kW
Manufacturer	DIE
Model	TUP-16-O4-1
Year	2009

**Primary
Antenna**

Adjustment to Existing Antenna

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

**Primary
Antenna**

Other Antenna Costs

Section	Question	Response
Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	

**Primary
Antenna**

Other Antenna Cost Not Listed

Name	Description
Antenna Optimizing	Optimize match to operate on channel 16 from 28

Transmission Line

Section	Question	Response
Transmission Line Related Expenses	Do you have transmission line related expenses?	No

Tower Equipment And Rigging Costs

Section	Question	Response
Tower Equipment or Rigging Costs Changes	Do you have tower equipment or rigging costs changes?	No

Outside Professional Services Costs

Section	Question	Response
Outside Project Management Services	Do you require outside project management services?	Yes
	Number of Hours	280
	Explanation	Applicant has limited internal resources to oversee installing and commissioning this repack project. It will rely on outside services to manage all work required.
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	Yes
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	No
RF Field Engineering Services	Comprehensive coverage verification via field study	No

RF exposure measurements	No
Additional Field Engineering Service	Yes
Number of Days	1
Justification	Initial sweep of the antenna to verify if antenna could operate on original repack channel 21.

Outside Professional Services Costs

Other Professional Services Expenses Not Listed

Name	Description
Progress Reports	Prepare and file 8 required progress reports on FCC Form 2100, Schedule 387 on a quarterly basis with the FCC.

Other Expenses

Section	Question	Response
AM Pattern Disturbance	Is an Impact Study needed?	No
	Is Remediation needed?	No
Facility Expenses	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
Permit and Filing Costs	Local Zoning	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?	No
	Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses	Other Expenses Not Listed
	Information not provided.

Cost Information

Transmitters

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmitter MPTV-PRLX- U8	\$631,988.50	\$607,488.50		\$0.00	
Remote Control Interface	<i>\$2,197.50</i>	\$2,197.50	License required to interface transmitter into current remote control system. These are in use now on the Comark transmitters. This IS NOT an upgrade.	N/A	N/A
8-Pole Mask Filter	<i>\$15,000.00</i>	\$15,000.00	A more stringent mask filter to protect adjacent land mobile stations on Ch. 17 in Washington DC.	N/A	N/A

Motorized Switch	\$20,195.00	\$20,195.00	Electric actuated switch to switch main /auxiliary transmitters into antenna. Current transmitter has this capability but switch cannot be moved as it is in pre-repack service.	N/A	N/A
Rigid Coax Line	\$2,600.00	\$2,600.00	Rigid interconnection coax lines from transmitter to filter to antenna switch. Part of the internal RF systems and will be cut to length needed. This IS NOT an upgrade.	N/A	N/A
CIF Mask filter	\$60,207.00	\$60,207.00	Constant Impedance mask Filter. Current mask filter is a CIF.	N/A	N/A

Other Electrical Service: Electrical contractor to connect transmitter into existing electrical panel and wire heat exchanger into transmitter. Includes material and labor.	\$14,200.00	\$14,200.00	Electrical contractor to connect transmitter into existing electrical panel and wire heat exchanger into transmitter. Includes material and labor.	N/A	N/A
Site Design and Survey	\$15,300.00	\$15,300.00	Incorporates all aspects of the transmitter room design, including power distribution requirements, equipment placement, RF system layout, plumbing, and remote control.	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	\$494,500.00	\$470,000.00	N/A	N/A	N/A
Coolant	\$814.00	\$814.00	The coolant used for the transmitter heat exchanger is not included in the transmitter price. See attached coolant quote.	N/A	N/A

Bag Filter	\$6,975.00	\$6,975.00	Bag type water filtration for heat exchanger system. Current pre-repack cooling system has this filtering. This IS NOT an upgrade.	N/A	N/A
Auxiliary Transmitter PRLX-U8	\$521,286.50	\$496,786.50		\$0.00	
Rigid Coax Line	\$2,600.00	\$2,600.00	Rigid interconnection coax lines from transmitter to filter to antenna switch. Part of the internal RF systems and will be cut to length needed. This IS NOT an upgrade.	N/A	N/A
Coolant	\$814.00	\$814.00	The coolant used for the transmitter heat exchanger is not included in the transmitter price. See attached coolant quote.	N/A	N/A

Other Electrical Service: Electrical contractor to connect transmitter into existing electrical panel and wire heat exchanger into transmitter. Includes material and labor.	\$14,200.00	\$14,200.00	Electrical contractor to connect transmitter into existing electrical panel and wire heat exchanger into transmitter. Includes material and labor. See attached electrical quote.	N/A	N/A
Bag Filter	\$6,975.00	\$6,975.00	Bag type water filtration for heat exchanger system. Current pre-repack cooling system has this filtering. This IS NOT an upgrade.	N/A	N/A
UHF - Liquid Cooled Solid State Transmitter 8.2 - 13 kW	\$494,500.00	\$470,000.00	N/A	N/A	N/A
Remote Control Interface	\$2,197.50	\$2,197.50	License required to interface transmitter into current remote control system. Current Comark transmitters have this interface. This IS NOT an upgrade.	N/A	N/A
Sub-total	\$1,153,275.00	\$1,104,275.00	N/A	\$0.00	N/A

Total for all systems	\$1,566,075.00	\$1,262,645.00	N/A	\$0.00	N/A
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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
Primary Antenna TUP-16-O4-1	\$256,730.00	\$9,400.00		\$0.00	
Antenna Optimizing	<i>\$3,000.00</i>	\$3,000.00	Optimize antenna match from channel 28 to channel 16	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	\$247,000.00	\$0.00	N/A	N/A	N/A
Sub-total	\$256,730.00	\$9,400.00	N/A	\$0.00	N/A
Total for all systems	\$1,566,075.00	\$1,262,645.00	N/A	\$0.00	N/A

Components

Information not provided.

Cost Information **Transmission Line**
Information not provided.

Cost Information **Tower Equipment and Rigging Costs**
Information not provided.

Cost Information **Outside Professional Services**

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

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Outside Professional Services	\$105,200.00	\$102,650.00		\$0.00	
Progress Reports	<i>\$28,000.00</i>	\$28,000.00	Prepare and file 8 required progress reports on FCC Form 2100, Schedule 387 on a quarterly basis with the FCC.	N/A	N/A
Additional Field Engineering Service, 1 Days	<i>\$6,400.00</i>	\$6,400.00	Initial sweep of antenna to evaluate operation on channel 21 from channel 28.	N/A	N/A

Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$5,000.00	Fees related to multi-party resolution agreement with Maryland Public TV, WETA and HME Equity Fund II, LLC. Involved several stations moving channels to accommodate WETA moving from ch 14 to 31.	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	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

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 and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A
Project management of the transition	\$44,240.00	\$42,000.00	N/A	N/A	N/A
Sub-total	\$105,200.00	\$102,650.00	N/A	\$0.00	N/A
Total for all systems	\$1,566,075.00	\$1,262,645.00	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
Other Expenses	\$50,870.00	\$46,320.00		\$0.00	
MVPD Notification of Channel Change	<i>\$1,000.00</i>	\$1,000.00	Notification will need to be made to MVPD's as required. Applicant to explore using an outside firm to determine which facilities will need to be notified and send the appropriate notification letters.	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$18,320.00</i>	\$18,320.00	Transmitter shipping shown as options on attached quotes.	N/A	N/A

Disposal Costs (for equipment and other waste, net of any salvage value)	\$20,000.00	\$20,000.00	Applicant will be required to dispose of the current transmission line and transmitter and heavy oil filled high voltage power supplies. These cannot be disposed of in a typical landfill.	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$7,000.00	N/A	N/A	N/A
Sub-total	\$50,870.00	\$46,320.00	N/A	\$0.00	N/A
Total for all systems	\$1,566,075.00	\$1,262,645.00	N/A	\$0.00	N/A

Components

Information not provided.

Cost Information	Grand Total			
		Predetermined Cost Estimate	Estimated Cost	Actual Cost
	Total for all systems	\$1,566,075.00	\$1,262,645.00	\$0.00

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

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	<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"> 1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount. 	

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

<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>Larry D Unger <i>President & CEO</i></p> <p>09/28/2017</p>

Attachments