



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **6900** | Service: **DTV** | Call **WUPA** | Channel: **36 (UHF)**
ID: | Sign:
File **0000027041**
Number:
FRN: **0003474871** | Date **08/31**
Submitted: **/2018**

Applicant Information

Applicant Name, Type, and Contact Information

| Applicant | Address | Phone | Email | Applicant Type |
|--|--|-------------------|----------------|----------------|
| ATLANTA TELEVISION STATION WUPA INC. Doing Business As: ATLANTA TELEVISION STATION WUPA INC. | Daniel G. Ryson 1725 DeSales St. NW Suite 501 Washington, DC 20036 United States | +1 (202) 457-4505 | dryson@cbs.com | Corporation |

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 |
|--|--|-------------------|----------------|
| Daniel G. Nass , Ryson . CBS | Daniel G. Ryson 1725 DeSales St. NW Suite 501 Washington, DC 20036 United States | +1 (202) 457-4074 | dryson@cbs.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. | Yes |
| Briefly describe transition plan | ATS will install new broadband ant at interim site. Facility will move to interim site. Current main site ant and tx line will be removed. ATS will install new broadband ant at main site. Facility will move from interim site to main site. |

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 |
| Existing Transmitter Manufacturer and Type | Manufacturer | Rhode and Schwarz |

| | |
|----------------------------|-------------|
| Model | NV8303 |
| Year | 2001 |
| Type | Solid State |
| Solid State Cooling | Air Cooled |
| Solid State Power capacity | 1.5 kW |

Auxiliary Transmitter **Retuning Transmitter Costs**

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

Auxiliary Transmitter **Other Transmitter Costs**

| Section | Question | Response |
|---------------------------|--|----------|
| Electrical Service | Service Entrance (3 phases 800A 208V) | No |
| | Switchgear (industrial 800 amp) | No |
| | Transformer (480V) | No |
| | Power | N/A |
| | Rigid Conduit and Wiring | No |
| | Size | N/A |
| | Length | N/A |
| | Other Electrical Service | No |
| | Description | N/A |
| HVAC Service | Does the replacement transmitter require HVAC Service? | No |
| | | |

| | | |
|--|---|-----|
| | 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**
Information not provided.

**Primary
Transmitter**

Existing Transmitter Information

| Section | Question | Response |
|---|--|--------------------------|
| Existing Transmitter Description | Type of change | Purchase New |
| | Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this transmitter currently shared with another station? | No |
| | Is this transmitter currently in operating condition? | Yes |
| Existing Transmitter Manufacturer and Type | Manufacturer | |
| | Model | Sigma |
| | Year | 2001 |
| | Type | Inductive Output Tube |
| | IOT Power Type | Three |
| | Power Capacity | 63 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 | ULXTE-100 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 62.9 kW |
| | Justification for New Transmitter | Cannot re-tune current IOT transmitter. Replacement IOT transmitter will exceed cost of replacement solid state. |

**Primary
Transmitter**

Other Transmitter Costs

| Section | Question | Response |
|--------------------|---------------------------------------|----------|
| Electrical Service | Service Entrance (3 phases 800A 208V) | No |
| | Switchgear (industrial 800 amp) | No |
| | Transformer (480V) | Yes |
| | Power | 500 kVA |
| | Rigid Conduit and Wiring | Yes |
| | Size | 4 inches |
| | | |

| | | |
|--|---|---|
| | Length | 300.0 feet |
| | Other Electrical Service | Yes |
| | Description | Electrical work. Includes labor and materials not already listed. |
| 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**
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 | ULXTE-72 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 35.4 kW |
| | Justification for New Transmitter | Facility must move to interim site for an expended period of time. Revised gains and losses at interim site required an increase in transmitter size to ULXTE-72 (35.4 kW @ Ch. 43) to replicate licensed WUPA coverage. See May 2018 Statement. |

**Interim
Transmitter**

Other Transmitter Costs

| Section | Question | Response |
|--|---|---|
| Electrical Service | Service Entrance (3 phases 800A 208V) | No |
| | Switchgear (industrial 800 amp) | Yes |
| | Transformer (480V) | No |
| | Power | N/A |
| | Rigid Conduit and Wiring | Yes |
| | Size | 4 inches |
| | Length | 400.0 feet |
| | Other Electrical Service | Yes |
| | Description | Electrical work including labor and materials not listed elsewhere. See Exhibit 7 |
| 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 |

| | | |
|-------------------------|---|----|
| Inside RF System | Is an additional interior RF system required to support this interim transmitter? | No |
|-------------------------|---|----|

**Interim
Transmitter**

Other Transmitter Cost Not Listed

| Name | Description |
|----------------------------|--|
| Transmitter Control | Remote Control and Monitoring of Interim Transmitter and site. |

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 | Lease New |
| | Antenna Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is the existing antenna shared with another station or stations? | No |
| | Is the existing antenna directional? | No |
| | 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 | Slotted Coaxial |
| | Number of Stations Supported | N/A |
| | Number of Panels | N/A |
| | Design power capacity in use | N/A |
| | Lower Limit | N/A |
| | Upper Limit | N/A |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 1000.0 kW |
| | Manufacturer | |

| | |
|-------|-------------|
| Model | TFU-32GTH-R |
| Year | 2002 |

**Primary
Antenna**

New Antenna Costs

| Section | Question | Response |
|---|--|-----------------|
| New Antenna Description | Use | Primary (Main) |
| | Description of Use | N/A |
| | Change Type | Lease New |
| | Is this a request for upgraded equipment? | Yes |
| | Ownership | Leased |
| | Owner | American Tower |
| | Is antenna shared? | Yes |
| | Is antenna directional? | No |
| | Will antenna be located on or in close proximity to an antenna farm? | No |
| New Antenna Manufacturer and Types | Class | Full Power |
| | Mounting | Top Mount |
| | Antenna position in stack | Top |
| | Polarization | Elliptical |
| | Type | Broadband Panel |
| | Number of Stations Supported | 4 |
| | Number of Panels/Bays | 99 |
| | Lower Limit | 470.00 MHz |
| | Upper Limit | 608.00 MHz |
| | Design power capacity in use | 50.0 % |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 1000.0 kW |
| | Manufacturer | |
| | | |

| | | |
|--|-------------------------------|---------------------------------|
| | Model | 14 bay, 4 around,, 56 ele total |
| | Year | 2018 |
| | Justification for New Antenna | Channel Change |

Primary Antenna

Other Antenna Costs

| Section | Question | Response |
|------------------------------------|---|---------------------------|
| Combiner for Shared Antenna | Do you need a Combiner for a Shared Antenna? | Yes |
| | Type | New |
| | Number of channels supported | 4 |
| | Frequencies of channels supported | Upper and lower frequency |
| | Frequency | 470.0 MHz - 608.0 MHz |
| | Do you need a combiner output splitter /switcher for dual feed lines? | No |
| Elbow Complex | Do you require the separate purchase of the Elbow Complex? | Yes |
| | Broadband or Single Channel? | Broadband |
| | Feed Line Size | 8 3/16 inches inches |
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for a high power antenna? | No |
| Pattern Scatter Analysis | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | No |
| Sweep Test | Do you require the sweep testing of transmission line and antenna? | Yes |

**Primary
Antenna**

Other Antenna Cost Not Listed

| Name | Description |
|----------------------------------|--------------------------|
| Dielectric Combiner Installation | installation of combiner |

**Interim
Antenna**

New Antenna Costs

| Section | Question | Response |
|--|--|------------------|
| New Antenna Description | Use | Interim |
| | Description of Use | N/A |
| | Change Type | Lease New |
| | Ownership | Leased |
| | Owner | American Tower |
| | Is antenna shared? | Yes |
| | Is antenna directional? | No |
| | Will antenna be located on or in close proximity to an antenna farm? | No |
| New Antenna Manufacturer and Type | Class | Full Power |
| | Mounting | Top Mount |
| | Antenna position in stack | Top |
| | Polarization | Elliptical |
| | Type | Broadband Panel |
| | Number of Stations Supported | 5 |
| | Number of Panels/Bays | 12 |
| | Lower Limit | 470.00 MHz |
| | Upper Limit | 608.00 MHz |
| | Design power capacity in use | 50.0 % |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 100.0 kW |
| | Manufacturer | |
| | Model | PEPL48D-C170-2-6 |
| | Year | 2018 |

| | | |
|--|-------------------------------|---------------------------------|
| | Justification for New Antenna | Needed for transition logistics |
|--|-------------------------------|---------------------------------|

Interim Antenna

Other Antenna Costs

| Section | Question | Response |
|------------------------------------|---|---------------------------|
| Combiner for Shared Antenna | Do you need a Combiner for a Shared Antenna? | Yes |
| | Type | New |
| | Number of channels supported | 5 |
| | Frequencies of channels supported | Upper and lower frequency |
| | Frequency | 470.0 MHz - 608.0 MHz |
| | Do you need a combiner output splitter /switcher for dual feed lines? | No |
| Elbow Complex | Do you require the separate purchase of the Elbow Complex? | Yes |
| | Broadband or Single Channel? | B |
| | Feed Line Size | 8 3/16 inches |
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for an antenna? | No |
| Pattern Scatter Analysis | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | No |
| Sweep Test | Do you require the sweep testing of transmission line and antenna? | Yes |

Interim Antenna

Other Antenna Cost Not Listed

| Name | Description |
|------|-------------|
|------|-------------|

| | |
|------------------------------|--|
| Combiner Installation | Installation of interim site combiner. |
|------------------------------|--|

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 |
|---|--|-------------------|
| Existing Transmission Line Description | Type of change | Lease New |
| | Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is the existing transmission line shared with another station or stations? | Yes |
| | Is Transmission Line in operating condition? | Yes |
| Existing Transmission Line Manufacturer and Type | Manufacturer | |
| | Type | Rigid |
| | Diameter | 8 3/16 inches |
| | Other Diameter | N/A |
| | Segment Length | Broadband |
| | Other Segment Length | N/A |
| | Number of parallel runs | 2 |
| | Length | 1275 feet per run |

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

| Facility ID | Call Sign |
|-------------|-----------|
| 23960 | WSB-TV |
| 48813 | WUVG-DT |
| 64033 | WPCH-TV |

72120

WGCL-TV

Primary
Transmission Line

New Transmission Line

| Section | Question | Response |
|------------------------------------|---|--|
| New Transmission Line Costs | Use | Primary (Main) |
| | Description of Use | N/A |
| | Change Type | Lease New |
| | Is this a request for upgraded equipment? | No |
| | Type | Rigid |
| | Diameter | 8 3/16 inches |
| | Other Diameter | N/A |
| | Segment Length | 20 inches |
| | Other Segment Length | N/A |
| | Number of parallel runs | 2 |
| | Length | 1275 feet per run |
| | Justification for New Transmission Line | Line to be re-furbished and connectors replaced. |

Primary
Transmission Line

Other Transmission Line Expenses Not Listed

| Name | Description |
|----------------------------------|--|
| Gas Blocks | gas blocks |
| Interconnect tx line main | 50' of 7-3/16" for connect to combiner. |
| TX line reducers | (2) 7-3/16" to 6-1/8" reducers |
| Interconnect tx line aux | 150' of 6-1/8" line for connect to combiner. |

Interim **New Transmission Line**
Transmission Line **Section**

| | Question | Response |
|------------------------------------|---|--------------------------|
| New Transmission Line Costs | Use | Interim |
| | Description of Use | N/A |
| | Change Type | Lease New |
| | Type | Rigid |
| | Diameter | 8 3/16 inches |
| | Segment Length | Broadband |
| | Other Segment Length | |
| | Number of parallel runs | 1 |
| | Length | 1225 feet per run |
| | Justification for New Transmission Line | For interim site antenna |

Interim **Other Transmission Line Expenses Not Listed**
Transmission Line **None**

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 |

**Auxiliary
Tower**

Add Tower

| Section | Question | Response |
|--|---|--------------------|
| Existing Tower Description | Type of change | Modify Existing |
| | Tower Use | Auxiliary (Backup) |
| | Description of Use | Interim Tower |
| | Ownership | Leased |
| | Is this tower consider Complex? | Candelabra |
| | Is this tower currently shared with any other stations? | Yes |
| | One or more FM, AM or TV radio broadcaster(s) | Yes |
| | Others Types of Users | No |
| | Is tower documented for structural analysis? | Unknown |
| | Is tower compliant with Rev G? | Yes |
| Existing Tower Structure Registration | Do you have a tower registration number? | Yes |
| | ASR Number | 1206253 |
| Coordinates (NAD83 (North American Datum of 1983)) | Latitude (NAD83) | 33° 44' 40.9" N- |
| | Longitude (NAD83) | 084° 21' 35.7" W- |
| | Overall Structure Height | 1080.04 feet |
| | Support Structure Height | 956.03 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 969.15 feet |
| | | |

| | |
|------------------|---|
| Structure Type | GTOWER - Guyed Structure Used for Communication Purposes |
| Tower Owner | American Towers, LLC |
| Date Constructed | 05/14/2002 |

**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 |
|-------------|-----------|---------|
| 55108 | WIRE-CD | DTV |
| 64033 | WPCH-TV | DTV |
| 48813 | WUVG-DT | DTV |
| 168094 | WYGA-CD | DTV |
| 23959 | WRAS | FM |
| 68058 | WHSG-TV | DTV |

**Auxiliary
Tower**

Tower Modification Costs

| Section | Question | Response |
|-----------------------------|--|--|
| Engineering Study | Please what type of engineering study is required, if any: | Study needed for tower with candelabra |
| Tower Reinforcements | Please select whether tower reinforcements are needed: | Minor Reinforcements needed |

**Auxiliary
Tower**

Tower Rigging Costs

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

**Auxiliary
Tower**

Other Tower Expenses Not Listed

Information not provided.

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? | Candelabra |
| | Is this tower currently shared with any other stations? | Yes |
| | One or more FM, AM or TV radio broadcaster(s) | Yes |
| | Others Types of Users | No |
| | Is tower documented for structural analysis? | Unknown |
| | Is tower compliant with Rev G? | Unknown |
| Existing Tower Structure Registration | Do you have a tower registration number? | Yes |
| | ASR Number | 1223132 |
| Coordinates (NAD83 (North American Datum of 1983)) | Latitude (NAD83) | 33° 48' 26.4" N- |
| | Longitude (NAD83) | 084° 20' 21.5" W- |
| | Overall Structure Height | 1182.07 feet |
| | Support Structure Height | 1056.09 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 867.12 feet |
| | Structure Type | GTOWER - Guyed Structure Used for Communication Purposes |
| | Tower Owner | American Tower, LLC |
| | Date Constructed | 03/27/2002 |

**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 |
|-------------|-----------|---------|
| 11675 | WCLK | FM |
| 11275 | WWPW | FM |
| 13805 | WZGC | FM |
| 22819 | WATL | DTV |
| 23960 | WSB-TV | DTV |
| 29735 | WUBL | FM |
| 48813 | WUVG-DT | DTV |
| 72120 | WGCL-TV | DTV |
| 39735 | WSTT | AM |
| 73161 | WKHX-FM | FM |
| 64033 | WPCH-TV | DTV |
| 68058 | WHSG-TV | DTV |
| 73345 | WWWQ | FM |
| 54585 | WRFG | FM |

**Primary
Tower**

Tower Modification Costs

| Section | Question | Response |
|-----------------------------|--|--|
| Engineering Study | Please what type of engineering study is required, if any: | Study needed for tower with candelabra |
| Tower Reinforcements | Please select whether tower reinforcements are needed: | Major Reinforcements needed |

**Primary
Tower**

Tower Rigging Costs

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

**Primary
Tower**

Other Tower Expenses Not Listed

Information not provided.

**Outside
Professional**

| Section | Question | Response |
|---|--|---|
| Services Costs Outside Project Management Services | Do you require outside project management services? | Yes |
| | Number of Hours | 250 |
| | Explanation | Station does not have adequate staff to handle this internally. |
| 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 | No |
| | For Auxiliary Facility | N/A |
| | For Main Facility | N/A |
| | | |

| | | |
|--------------------------------------|--|-----|
| | Prepare and file Form FCC License to Cover Application | No |
| | For Auxiliary Facility | N/A |
| | For Main Facility | N/A |
| | 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 | No |
| | Address transition timing and coordination issues w/ other stations and wireless providers | No |
| RF Field Engineering Services | Comprehensive coverage verification via field study | No |
| | RF exposure measurements | Yes |
| | Additional Field Engineering Service | No |
| | Number of Days | N/A |
| | Justification | N/A |

Outside Other Professional Services Expenses Not Listed
Professional Services Costs Services not provided.

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 | Yes |
| | BLM or NFS Coordination | No |
| | FCC Construction Permit Minor Change | No |
| | FCC License to Cover Application | No |
| | FCC Special Temporary Authority Application | No |
| Other Miscellaneous Expenses | Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)? | Yes |
| | Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs? | Yes |
| | Does this relocation require Equipment Storage? | No |
| | Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change? | Yes |
| | Does this relocation require MVPD Notification of a Channel Change? | Yes |

**Other
Expenses**

Other Expenses Not Listed

| Name | Description |
|----------------------------------|---|
| Interim site tx internal tx line | Install / modify feed line to combiner and test. |
| ATC Proj Mgmt | Tower construction project management by ATC. Site coordinations. |
| Main tx internal tx line | Install / modify feed line to combiner and test. |

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 |
|---|-----------------------------|----------------|--|--------------|--|
| Interim Transmitter ULXTE-72 | \$1,608,780.00 | \$1,475,559.22 | | \$763,682.66 | |
| Transmitter Control | <i>\$4,680.00</i> | \$4,680.00 | Remote Control and Monitoring of Interim Transmitter and Site. Does not include sales tax or shipping. See Attachment 13. | \$5,135.40 | Includes Shipping and 8% State Sales Tax. See quote provided as Attachment 13. |
| Other Electrical Service: Electrical work including labor and materials not listed elsewhere. See Exhibit 7 | <i>\$52,500.00</i> | \$52,500.00 | See Exhibit 7. (Note: Original 399 Filing reversed Primary and Interim Costs. This was corrected in a April, 2018 revision.) | \$0.00 | N/A |
| 4" Rigid Conduit and Wiring (Cost per foot) | \$40,400.00 | \$38,400.00 | N/A | N/A | N/A |
| Switchgear - industrial 800 amp | \$38,200.00 | \$36,300.00 | N/A | N/A | N/A |

| | | | | | |
|--|-----------------------|-----------------------|--|---------------------|-----|
| UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW | \$1,473,000.00 | \$1,343,679.22 | Includes Transmitter, Mask Filter, RF Accessories, Electrical, Installation & Proof, Tax, and Shipping. See May 2018 Statement, Attachment 5B, which supersedes Attachments 5 and 5A. | \$758,547.26 | N/A |
| Primary Transmitter ULXTE-100 | \$1,946,500.64 | \$1,942,600.64 | | \$647,562.12 | |
| Other Electrical Service: Electrical work. Includes labor and materials not already listed. | \$47,500.00 | \$47,500.00 | Electrical service required for new transmitter and transmitter cooling equipment. (Note: Original 399 Filing reversed Primary and Interim Costs. This was corrected in a April, 2018 revision.) | N/A | N/A |
| 4" Rigid Conduit and Wiring (Cost per foot) | \$30,300.00 | \$28,800.00 | N/A | N/A | N/A |

| | | | | | |
|--|-----------------------|-----------------------|---|-----------------------|------------|
| UHF - Liquid Cooled Solid State Transmitter 62.9 kW | \$1,820,300.64 | \$1,820,300.64 | Present transmitter cannot be re- tuned per manufacturer. Solid state transmitter cost is less than replacement IOT transmitter. Includes Shipping, Tax, and Installation. See Attachment 2A. | \$647,562.12 | N/A |
| Transformer 3 phase /480v - 500 KVA | \$48,400.00 | \$46,000.00 | N/A | N/A | N/A |
| Auxiliary Transmitter NV8303 | \$108,230.00 | \$2,800.00 | | \$0.00 | |
| 1.5 kW mask filter | \$3,030.00 | \$2,800.00 | N/A | N/A | N/A |
| UHF and VHF - minor banding issues | \$105,200.00 | \$0.00 | N/A | N/A | N/A |
| Sub-total | \$3,663,510.64 | \$3,420,959.86 | N/A | \$1,411,244.78 | N/A |
| Total for all systems | \$8,141,615.64 | \$4,542,372.86 | N/A | \$1,669,311.70 | N/A |

Components

Actual Information
Description

File Name

| | |
|---|--|
| Transmitter Control | <p>Component Description:</p> <p>Excludes \$1,200 Annual Support Contract at Primary Site which is not a Repack Related Expense. Adds Shipping and 8% Sales Tax not shown on original invoice, Attachment 13.</p> <p>Amount:</p> <p>\$5,135.40</p> |
| Other Electrical Service: Electrical work including labor and materials not listed elsewhere. See Exhibit 7 | Information not provided. |
| 4" Rigid Conduit and Wiring (Cost per foot) | Information not provided. |
| Switchgear - industrial 800 amp | Information not provided. |
| UHF - Liquid Cooled Solid State Transmitter 35 - 50 kW | <p>Component Description:</p> <p>Interim transmitter progress payment. See May 2018 Statement and Attachment 5B.</p> <p>Amount:</p> <p>\$379,273.63</p> <p>Component Description:</p> <p>Interim Transmitter Down Payment. Please see May 2018 Statement and Attachment 5B.</p> <p>Amount:</p> <p>\$379,273.63</p> |

| | |
|--|--|
| Other Electrical Service: Electrical work. Includes labor and materials not already listed. | Information not provided. |
| 4" Rigid Conduit and Wiring (Cost per foot) | Information not provided. |
| UHF - Liquid Cooled Solid State Transmitter 62.9 kW | <div> <div> Component Description: </div> <div> Primary Transmitter Down Payment. See Attachment 8B for an explanation of the "more than 1 /3" down payment amount specified in GatesAir's terms. This invoice excludes tax and shipping. </div> </div> <div> Amount: </div> <div> \$647,562.12 </div> |
| Transformer 3 phase/480v - 500 KVA | Information not provided. |
| 1.5 kW mask filter | Information not provided. |
| UHF and VHF - minor banding issues | 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 |
|--|-----------------------------|----------------|---------------------------------------|-------------|---------------------------|
| Interim Antenna PEPL48D-C170-2-6 | \$196,675.00 | \$115,395.00 | | \$64,770.25 | |
| Combiner Installation | <i>\$5,000.00</i> | \$5,000.00 | See EXHIBIT | N/A | N/A |
| Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed) | \$18,950.00 | \$3,600.00 | N/A | N/A | N/A |
| New combiner, cost per channel (without antenna) | \$84,200.00 | \$22,500.00 | N/A | N/A | N/A |
| Sweep test of existing antenna | \$6,730.00 | \$2,500.00 | N/A | N/A | N/A |
| UHF - High Power Top Mount Five Station broadband panel antenna elliptically or circularly polarized | <i>\$81,795.00</i> | \$81,795.00 | To accommodate move. See Attachment 7 | \$64,770.25 | N/A |

| | | | | | |
|--|-----------------------|-----------------------|--|-----------------------|------------|
| Primary Antenna 14 bay, 4 around,, 56 ele total | \$1,216,980.00 | \$308,213.00 | | \$187,690.00 | |
| Dielectric Combiner Installation | \$17,100.00 | \$17,100.00 | Cost includes removal of existing combiner. | N/A | N/A |
| UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized | \$1,090,000.00 | \$202,113.00 | See Attachment 6, Page 1. This is WUPA's pro rata share. | \$187,690.00 | N/A |
| Sweep test of existing antenna | \$6,730.00 | \$5,000.00 | N/A | N/A | N/A |
| New combiner, cost per channel (without antenna) | \$84,200.00 | \$66,000.00 | N/A | N/A | N/A |
| Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed) | \$18,950.00 | \$18,000.00 | N/A | N/A | N/A |
| Sub-total | \$1,413,655.00 | \$423,608.00 | N/A | \$252,460.25 | N/A |
| Total for all systems | \$8,141,615.64 | \$4,542,372.86 | N/A | \$1,669,311.70 | N/A |

Components

| Actual Information | File Name |
|--|---|
| Description | |
| Combiner Installation | Information not provided. |
| Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed) | Information not provided. |
| New combiner, cost per channel (without antenna) | Information not provided. |
| Sweep test of existing antenna | Information not provided. |
| UHF - High Power Top Mount Five Station broadband panel antenna elliptically or circularly polarized | <div> Component Description: </div> <div> 25% Down Payment of amount shown in Attachment 7 (minus 57,600 rent). Amount: </div> <div> \$64,770.25 </div> |
| Dielectric Combiner Installation | Information not provided. |
| UHF - High Power Top Mount (200-1000 kW), Four Station broadband panel antenna, elliptically or circularly polarized | <div> Component Description: </div> <div> 25% Down Payment of amount shown in Attachment 6. Amount: </div> <div> \$187,690.00 </div> |
| Sweep test of existing antenna | Information not provided. |
| New combiner, cost per channel (without antenna) | Information not provided. |
| Elbow complex, broadband, at antenna input, per 8 3/16. feedline (if needed) | 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 | \$488,775.00 | \$46,121.00 | | \$0.00 | |
| Rigid Transmission Line - copper, 8 3/16" broadband | \$488,775.00 | \$46,121.00 | N/A | N/A | N/A |
| Primary Transmission Line | \$943,950.00 | \$130,934.00 | | \$0.00 | |
| Interconnect tx line aux | <i>\$28,800.00</i> | \$28,800.00 | Aux transmitter interconnect to combiner. 150ft of 6-1/8" rigid copper line. | N/A | N/A |
| TX line reducers | <i>\$4,500.00</i> | \$4,500.00 | Required for line adapter from 7-3/16" to 6-1/8" combiner aux interconnect. | N/A | N/A |
| Interconnect tx line main | <i>\$13,800.00</i> | \$13,800.00 | 50ft of 7-3/16" line for main tx connect to combiner. Published price. | N/A | N/A |

| | | | | | |
|--|--------------------|----------------|--|----------------|-----|
| Gas Blocks | \$12,000.00 | \$12,000.00 | Required for aux interconnect to combiner | N/A | N/A |
| Rigid Transmission Line - copper, 8 3 /16" | \$884,850.00 | \$71,834.00 | N/A | N/A | N/A |
| Sub-total | \$1,432,725.00 | \$177,055.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$8,141,615.64 | \$4,542,372.86 | N/A | \$1,669,311.70 | 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 GTOWER | \$862,000.00 | \$308,300.00 | | \$0.00 | |
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | \$421,000.00 | \$136,000.00 | N/A | N/A | N/A |
| Major tower reinforcement /modifications | \$421,000.00 | \$157,500.00 | N/A | N/A | N/A |
| Structural engineering tower load study for a documented tower with candelabra | \$20,000.00 | \$14,800.00 | N/A | N/A | N/A |
| Auxiliary Tower GTOWER | \$599,000.00 | \$64,500.00 | | \$0.00 | |
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | \$421,000.00 | \$45,000.00 | N/A | N/A | N/A |

| | | | | | |
|--|----------------|----------------|-----|----------------|-----|
| Minor tower reinforcement /modifications | \$158,000.00 | \$15,000.00 | N/A | N/A | N/A |
| Structural engineering tower load study for a documented tower with candelabra | \$20,000.00 | \$4,500.00 | N/A | N/A | N/A |
| Sub-total | \$1,461,000.00 | \$372,800.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$8,141,615.64 | \$4,542,372.86 | N/A | \$1,669,311.70 | 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 |
|--|-----------------------------|-----------------------|------------------------------|-----------------------|---------------------------|
| Outside Professional Services | \$72,645.00 | \$57,170.00 | | \$5,606.67 | |
| RF Exposure Measurements | \$21,050.00 | \$8,000.00 | 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 engineering section of FCC Form 2100 (main), Construction Permit Application | \$3,155.00 | \$3,000.00 | N/A | \$1,625.00 | N/A |
| Perform engineering study for new channel assignment and antenna development | \$7,360.00 | \$7,170.00 | N/A | \$825.00 | N/A |
| Project management of the transition | \$39,500.00 | \$37,500.00 | N/A | \$3,156.67 | N/A |
| Sub-total | \$72,645.00 | \$57,170.00 | N/A | \$5,606.67 | N/A |
| Total for all systems | \$8,141,615.64 | \$4,542,372.86 | N/A | \$1,669,311.70 | N/A |

Components

| Actual Information | |
|--|--|
| Description | File Name |
| RF Exposure Measurements | Information not provided. |
| 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 | <p>Component Description: Develop final ERP and operating parameters for Construction Permit application. See Attachment 16.</p> <p>Amount: \$1,625.00</p> |
| Perform engineering study for new channel assignment and antenna development | <p>Component Description: Conduct preliminary review of repacked channel with prospective shared antenna. See Attachment 16.</p> <p>Amount: \$825.00</p> |
| Project management of the transition | <p>Component Description: Project Management and Repack Implementation. Please see Attachment 15.</p> <p>Amount: \$3,156.67</p> |

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 | \$98,080.00 | \$90,780.00 | | \$0.00 | |
| Main tx internal tx line | <i>\$7,000.00</i> | \$7,000.00 | Install line from transmitter to combiner and test. | N/A | N/A |
| ATC Proj Mgmt | <i>\$19,480.00</i> | \$19,480.00 | American Tower project management and oversight. | N/A | N/A |
| Interim site tx internal tx line | <i>\$4,000.00</i> | \$4,000.00 | Install line from transmitter to combiner and test. | N/A | N/A |
| MVPD Notification of Channel Change | <i>\$1,500.00</i> | \$1,500.00 | N/A | N/A | N/A |
| Develop and air announcement of upcoming channel change | <i>\$0.00</i> | \$0.00 | N/A | N/A | N/A |
| Equipment Delivery and Handling Charges | <i>\$15,000.00</i> | \$15,000.00 | N/A | N/A | N/A |

| | | | | | |
|--|--------------------|----------------|---|----------------|-----|
| Disposal Costs (for equipment and other waste, net of any salvage value) | \$20,000.00 | \$20,000.00 | Remove and dispose of transmitter and associated non-reused equipment. | N/A | N/A |
| Non-zoning permits | \$19,550.00 | \$19,550.00 | Prepare drawings for permits and permit filing costs for Main and Interim tower work. | N/A | N/A |
| DTV Medical Facility Notification | \$11,550.00 | \$4,250.00 | N/A | N/A | N/A |
| Sub-total | \$98,080.00 | \$90,780.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$8,141,615.64 | \$4,542,372.86 | N/A | \$1,669,311.70 | N/A |

Components

Information not provided.

| | | | |
|-------------------------|------------------------------|------------------------------------|-----------------------|
| Cost Information | Grand Total | | |
| | | Predetermined Cost Estimate | Estimated Cost |
| | | | Actual Cost |
| | Total for all systems | \$8,141,615.64 | \$4,542,372.86 |
| | | | \$1,669,311.70 |

| | | |
|-----------------------------|--|-----------------|
| 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>Andrew J Siegel <i>Assistant Secretary</i></p> <p>08/31/2018</p> |

Attachments