Approved by OMB (Office of Management and Budget) 3060-1178

Federal Communications Commission

(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility ID: **69114** | Service: **DTV** | Call Sign: **WUNE-TV** | Channel: **36 (UHF)**

File Number: **0000027167**

FRN: **0001910066** | Date Submitted: **08/07/2018**

## Applicant Information

### Applicant Name, Type, and Contact Information

| Applicant | Address | Phone | Email | Applicant Type |
|---|---|---|---|---|
| **University of North Carolina**<br>Doing Business As: UNIVERSITY OF NORTH CAROLINA | PO Box 27709<br>RESEARCH TRIANGLE PARK, NC 27709<br>United States | +1 (919) 549-7000 | fcc_notice@unctv.org | 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 |
|---|---|---|---|
| **Donald Smith , Smith .**<br>*Director of New Technologies Compliance & Planning*<br>*University of North Carolina Center for Public Television* | Donald Smith<br>10 T.W. Alexander Drive<br>Research Triangle Park, NC 27709<br>United States | +1 (919) 549-7025 | dsmith@unctv.org |

## 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 | The transition plan is to construct an interim facility at the existing site. The interim facility would be used when operation on the new channel begins. After that the necessary changes would be made to the primary transmission system. |

## 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 | Backup to Main |
| | 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 | LU2500ATD |
| | Year | 2008 |
| | Type | Solid State |
| | Solid State Cooling | Air Cooled |
| | Solid State Power Capacity | 2.5 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? | No |
| | Manufacturer | |
| | Model | ULXTE-10 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 6 kW |
| | Justification for New Transmitter | The transmitter support company has indicated that they may be able to provide re-channelization proposals for some models. At this time they have failed to provide a proposal. See attachment for further details. |

**Auxiliary 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 | 150 kVA |
| | Rigid Conduit and Wiring | Yes |
| | Size | 2 inches |
| | Length | 120.0 feet |
| | Other Electrical Service | Yes |
| | Description | Electrical feed disconnects and other items necessary to meet electrical code requirements |
| **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 leashold improvement? | No |
| | Size | N/A |
| **Channel 14 Costs** | Is an RF Consulting Engineer needed? | N/A |
| | Is a channel 14 Mask Filer needed? | N/A |
| | Is additional field engineering time needed? | N/A |
| | Number of Days | N/A |

## 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 | DHD45P2 |
| | Year | 2001 |
| | Type | Solid State |
| | Solid State Cooling | Air Cooled |
| | Solid State Power Capacity | 10.5 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? | No |
| | Manufacturer | |
| | Model | ULXTE-20 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 11.5 kW |
| | Justification for New Transmitter | The transmitter manufacturer has indicated that components necessary to modify the transmitter for operation on its new channel are no longer available and it will not be able to provide re-channelization services for the transmitter. See attached letter |

## Primary Transmitter

### Other Transmitter Costs

| Section | Question | Response |
|---|---|---|
| **Electrical Service** | Service Entrance (3 phases 800A 208V) | No |

| | | |
|---|---|---|
| | Switchgear (industrial 800 amp) | Yes |
| | Transformer (480V) | Yes |
| | Power | 150 kVA |
| | Rigid Conduit and Wiring | Yes |
| | Size | 2 inches |
| | Length | 120.0 feet |
| | Other Electrical Service | Yes |
| | Description | Electrical feed disconnects and other items necessary to meet electrical code requirements |
| **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 leashold improvement? | No |
| | Size | N/A |
| **Channel 14 Costs** | Is an RF Consulting Engineer needed? | N/A |
| | Is a channel 14 Mask Filer needed? | N/A |
| | Is additional field engineering time needed? | N/A |
| | Number of Days | N/A |

## Primary Transmitter

### Other Transmitter Cost Not Listed

Information not provided.

## Antennas

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

## Auxiliary Antenna

### Add Antenna Information

| Section | Question | Response |
|---|---|---|
| **Existing Antenna Description** | Type of change | Purchase New |
| | Antenna Use | Auxiliary (Backup) |
| | Description of Use | Backup to Main |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this antenna currently shared with any other stations? | No |
| | Is this 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 | 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) | 63.0 kW |

| | |
|---|---|
| Manufacturer | |
| Model | ATW8G4-HSS-17 |
| Year | 1986 |

## Auxiliary Antenna

### New Antenna Costs

| Section | Question | Response |
|---|---|---|
| **New Antenna Description** | Use | Auxiliary (Backup) |
| | Description of Use | Interim Facility and Eventual Auxiliary |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | No |
| | Ownership | Owned |
| | Owner | N/A |
| | Is antenna shared? | No |
| | Is antenna directional? | Yes |
| | Will antenna be located on or in close proximity to an antenna farm? | No |
| **New Antenna Manufacturer and Types** | 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) | 165.0 kW |

| | |
|---|---|
| Manufacturer | |
| Model | ATW10H4-ESGS-36H |
| Year | 2019 |
| Justification for New Antenna | The antenna can only operate on channel 17. The replacement antenna will be initially used as part of the interim facility during the transition. Following the transition it will become a permanent auxiliary antenna. |

**Auxiliary 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 | N/A |
| | Do you need a combiner output splitter /switcher for dual feed lines? | N/A |

| | | |
|---|---|---|
| **Elbow Complex** | Do you require the separate purchase of the Elbow Complex? | Yes |
| | Broadband or Single Channel? | Single Channel |
| | Feed Line Size | 6 1/8 inches inches |
| **Side Mount Brackets** | Do you require the separate purchase of side mount brackets for a high power antenna? | Yes |
| **Pattern Scatter Analysis** | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | Yes |
| **Sweep Test** | Do you require the sweep testing of transmission line and antenna? | Yes |

## Auxiliary Antenna

### Other Antenna Cost Not Listed

Information not provided.

## Primary Antenna

### Existing Antenna Information

| Section | Question | Response |
|---|---|---|
| **Existing Antenna Description** | Type of change | Purchase New |
| | Antenna Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is the existing antenna shared with another station or stations? | No |
| | Is the existing antenna directional? | Yes |
| | Is antenna in operating condition? | Yes |
| | Is antenna located on or in close proximity to an antenna farm? | No |
| **Existing Antenna Manufacturer and Type** | Class | Full Power |
| | Mounting | Top Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Elliptical |
| | 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) | 100.0 kW |
| | | |

| | |
|---|---|
| Manufacturer | |
| Model | ATW19HS5-ETC2-1 |
| Year | 1994 |

## Primary Antenna

### New Antenna Costs

| Section | Question | Response |
|---|---|---|
| **New Antenna Description** | Use | Primary (Main) |
| | Description of Use | N/A |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | No |
| | Ownership | Owned |
| | Owner | N/A |
| | Is antenna shared? | No |
| | Is antenna directional? | Yes |
| | Will antenna be located on or in close proximity to an antenna farm? | No |
| **New Antenna Manufacturer and Types** | Class | Full Power |
| | Mounting | Top 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) | 165.0 kW |
| | Manufacturer | |

| | |
|---|---|
| Model | TFU-21ETT /VP-R 4C180 |
| Year | 2019 |
| Justification for New Antenna | The antenna is a single channel slotted pylon style antenna. It cannot operate on a channel other than what it was designed, channel 17. The only viable option is to replace the antenna. |

**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 | N/A |
| | Do you need a combiner output splitter /switcher for dual feed lines? | N/A |
| **Elbow Complex** | Do you require the separate purchase of the Elbow Complex? | Yes |
| | Broadband or Single Channel? | Single Channel |

| | | |
|---|---|---|
| | Feed Line Size | 6 1/8 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

Information not provided.

## Transmission Line

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

## Auxiliary Transmission Line

### Add Transmission Line

| Section | Question | Response |
|---|---|---|
| **Existing Transmission Line Description** | Type of change | Purchase New |
| | Use | Auxiliary (Backup) |
| | Description of Use | Backup to Main |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this transmission currently shared with any other stations? | No |
| | Is Transmission Line in operating condition? | Yes |
| **Existing Transmission Line Manufacturer and Type** | Manufacturer | |
| | Type | Rigid |
| | Diameter | 6 1/8 inches |
| | Other Diameter | N/A |
| | Segment Length | 19 1/2 inches |
| | Other Segment Length | N/A |
| | Number of parallel runs | 1 |
| | Length | 210 feet per run |

## Auxiliary Transmission Line

### New Transmission Line

| Section | Question | Response |
|---|---|---|
| **New Transmission Line Costs** | Use | Auxiliary (Backup) |
| | Description of Use | Interim and backup to main |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | No |
| | Type | Rigid |
| | Diameter | 6 1/8 inches |
| | Other Diameter | N/A |
| | Segment Length | 20 inches |
| | Other Segment Length | N/A |
| | Number of parallel runs | 1 |
| | Length | 210 feet per run |
| | Justification for New Transmission Line | The existing transmission line has a stick length of 19-1/2 feet, a length that is inconsistent with operations on channel 36. The only option is to replace the transmission line. |

## Auxiliary Transmission Line

### Other Transmission Line Expenses Not Listed

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 | Move Equipment |
| | Tower Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Is this tower consider Complex? | No |
| | Is this tower currently shared with any other stations? | No |
| | One or more FM, AM or TV radio broadcaster(s) | N/A |
| | Others Types of Users | N/A |
| | Is tower documented for structural analysis? | Yes |
| | Is tower compliant with Rev G? | Yes |
| **Existing Tower Structure Registration** | Do you have a tower registration number? | Yes |
| | ASR Number | 1014575 |
| **Coordinates (NAD83 ( North American Datum of 1983))** | Latitude (NAD83) | 36° 03' 50.0" N- |
| | Longitude (NAD83) | 081° 50' 32.0" W- |
| | Overall Structure Height | 449.14 feet |
| | Support Structure Height | 400.26 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 4606.24 feet |

| | |
|---|---|
| Structure Type | TOWER - Free Standing or Guyed Structure |
| Tower Owner | UNIVERSITY OF NORTH CAROLINA |
| Date Constructed | 01/01/1990 |

**Primary Tower**

### Tower Rigging Costs

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

**Primary Tower**

### Other Tower Expenses Not Listed

Information not provided.

## Outside Professional Services Costs

| Section | Question | Response |
|---|---|---|
| **Outside Project Management Services** | Do you require outside project management services? | Yes |
| | Number of Hours | 120 |
| | Explanation | The transmission site is owned by the State of North Carolina. The state requires a project designer to submit plans for the project for review and approval. this is very similar to the local permitting process but done on the state level |
| **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 | Yes |
| | For Main Facility | Yes |
| | Prepare engineering section of Form FCC License to Cover Application | Yes |
| | For Auxiliary Facility | Yes |
| | For Main Facility | Yes |
| | Prepare request for Special Temporary Authority | Yes |

| | | |
|---|---|---|
| | Quantity | 1 |
| | Do you have Distributed Transmission System engineering services? | N/A |
| | Critical Facility | N/A |
| | Terrain-Shielded Facility | N/A |
| **Attorney and Other Outside Consulting Services** | Prepare and file Form FCC Construction Permit Application | Yes |
| | For Auxiliary Facility | Yes |
| | For Main Facility | Yes |
| | Prepare and file Form FCC License to Cover Application | Yes |
| | For Auxiliary Facility | Yes |
| | For Main Facility | Yes |
| | Prepare request for Special Temporary Authority | Yes |
| | Quantity | 1 |
| | NEPA Section 106 environmental review | No |
| | Environmental Assessment | No |
| | ASR Modification | Yes |
| | FAA Consultation (including preparation of FAA Form 7460) | Yes |
| | Negotiation of Lease and other Matter for Shared Locations | No |
| | Prepare or Review FCC Form 399 for Reimbursement | Yes |
| | Address transition timing and coordination issues w/ other stations and wireless providers | Yes |
| **RF Field Engineering Services** | Comprehensive coverage verification via field study | No |
| | RF exposure measurements | No |
| | 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 |
|---|---|
| **Additional Legal Expenses** | Legal expenses for non-catalog advice and review, including transition status reports and other miscellaneous legal needs. |

## 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? | Yes |
| | 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 ULXTE-20** | **$576,370.00** | **$548,600.00** | | **$0.00** | |
| 2" Rigid Conduit and Wiring (Cost per foot) | $3,120.00 | $3,000.00 | N/A | 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 |
| Switchgear - industrial 800 amp | $38,200.00 | $36,300.00 | N/A | N/A | N/A |
| Transformer 3 phase /480v - 150 KVA | $25,550.00 | $24,300.00 | N/A | N/A | N/A |
| Other Electrical Service: Electrical feed disconnects and other items necessary to meet electrical code requirements | ***$15,000.00*** | $15,000.00 | Estimate for non-categorized items necessary to meet electrical code requirements | N/A | N/A |
| **Auxiliary Transmitter ULXTE-10** | **$327,070.00** | **$312,200.00** | | **$0.00** | |

| | | | | | |
|---|---|---|---|---|---|
| Other Electrical Service: Electrical feed disconnects and other items necessary to meet electrical code requirements | ***$24,900.00*** | $24,900.00 | Estimate for non-categorized items necessary to meet electrical code requirements | N/A | N/A |
| 2" Rigid Conduit and Wiring (Cost per foot) | $3,120.00 | $3,000.00 | N/A | N/A | N/A |
| Transformer 3 phase /480v - 150 KVA | $25,550.00 | $24,300.00 | N/A | N/A | N/A |
| UHF - Liquid Cooled Solid State Transmitter 4.9 . 6.5 kW | $273,500.00 | $260,000.00 | N/A | N/A | N/A |
| **Sub-total** | $903,440.00 | $860,800.00 | N/A | $0.00 | N/A |
| **Total for all systems** | $1,646,973.00 | $1,674,201.00 | N/A | $14,600.77 | N/A |

## 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 TFU-21ETT /VP-R 4C180** | **$308,530.00** | **$252,380.00** | | **$0.00** | |
| Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed) | $12,300.00 | $11,700.00 | N/A | 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 , elliptically or circularly polarized | $289,500.00 | $234,280.00 | See Dielectric Antenna Quote | N/A | N/A |
| **Auxiliary Antenna ATW10H4-ESGS-36H** | **$150,540.00** | **$223,100.00** | | **$0.00** | |

| | | | | | |
|---|---|---|---|---|---|
| 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 |
| 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 |
| UHF - Lower Power Side Mount, One Station antenna . medium power (50-200 kW), elliptically or circularly polarized | $103,100.00 | $178,000.00 | See line item 002 in ERI antenna quote | 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 6 1/8. feedline (if needed) | $12,300.00 | $11,700.00 | N/A | N/A | N/A |
| **Sub-total** | $459,070.00 | $475,480.00 | N/A | $0.00 | N/A |

| | | | | | |
|---|---|---|---|---|---|
| **Total for all systems** | $1,646,973.00 | $1,674,201.00 | N/A | $14,600.77 | 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 |
|---|---|---|---|---|---|
| **Auxiliary Transmission Line** | **$42,420.00** | **$57,953.00** | | **$0.00** | |
| Rigid Transmission Line - copper, 6 1/8" | $42,420.00 | $57,953.00 | See line items 004 - 021 & 023 in the attached ERI quote | N/A | N/A |
| **Sub-total** | $42,420.00 | $57,953.00 | N/A | $0.00 | N/A |
| **Total for all systems** | $1,646,973.00 | $1,674,201.00 | N/A | $14,600.77 | 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** | **$84,200.00** | **$131,700.00** | | **$0.00** | |
| Short Tower (less than 500') | $84,200.00 | $131,700.00 | See line item 025 in attached ERI antenna and transmission line quote | N/A | N/A |
| **Sub-total** | $84,200.00 | $131,700.00 | N/A | $0.00 | N/A |
| **Total for all systems** | $1,646,973.00 | $1,674,201.00 | N/A | $14,600.77 | 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** | **$66,775.00** | **$63,250.00** | | **$14,600.77** | |
| Additional Legal Expenses | ***$5,000.00*** | $5,000.00 | Preliminary estimate for legal expenses for non-catalog advice and review including transition status reports and other miscellaneous legal needs. | $3,228.27 | N/A |
| FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase | $2,105.00 | $2,000.00 | 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 request for Special Temporary Authorization | $3,680.00 | $3,500.00 | 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 - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application | $4,210.00 | $4,000.00 | 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 request for Special Temporary Authorization | $2,050.00 | $1,500.00 | N/A | N/A | N/A |
| RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application | $1,580.00 | $1,500.00 | 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 |
| RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application | $2,105.00 | $2,000.00 | 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 | $1,687.50 | N/A |
| Perform engineering study for new channel assignment and antenna development | $7,360.00 | $7,000.00 | N/A | $662.50 | N/A |
| Project management of the transition | $18,960.00 | $18,000.00 | N/A | $9,022.50 | N/A |
| Prepare and or review reimbursement form | $2,630.00 | $2,500.00 | 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 |
| **Sub-total** | $66,775.00 | $63,250.00 | N/A | $14,600.77 | N/A |
| **Total for all systems** | $1,646,973.00 | $1,674,201.00 | N/A | $14,600.77 | N/A |

## Components

| Actual Information Description | File Name | |
|---|---|---|
| Additional Legal Expenses | **Component Description:** | Outside Professional Services Additional Legal Expenses |
| | **Amount:** | $245.40 |
| | **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across 10 of 11 Call Signs/Facility IDs, 3378.88/10 equal 337.89 as outlined on page 1 of invoice. |
| | **Amount:** | $337.89 |
| | **Component Description:** | Outside Professional Services Additional Legal Expenses |
| | **Amount:** | $33.70 |

| | |
|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 2594.40/11 equal 235.85 as outlined on page 1 of invoice. |
| **Amount:** | $235.85 |

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|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 175.00/11 equal 15.90 as outlined on page 1 of invoice. |
| **Amount:** | $15.90 |

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|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 315.00/11 equal 28.64 as outlined on page 1 of invoice. |
| **Amount:** | $28.64 |

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|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses |
| **Amount:** | $67.40 |
| **Component Description:** | Outside Professional Services Additional Legal Expenses |
| **Amount:** | $70.00 |
| **Component Description:** | Outside Professional Services Additional Legal ExpensesLegal services benefit entire FCC Repack project across all 11 Call Signs /Facility IDs, 959.50 /11 equal 87.22 as outlined on page 1 of invoice. |
| **Amount:** | $87.22 |
| **Component Description:** | Outside Professional Services Additional Legal Expense Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 67.40/11 equal 6.13 as outlined on page 1 of invoice. |
| **Amount:** | $6.13 |

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| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 168.50/11 equal 15.31 as outlined on page 1 of invoice. |
| **Amount:** | $15.31 |
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 323.00/11 equal 29.36 as outlined on page 1 of invoice. |
| **Amount:** | $29.36 |
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 350.00/11 equal 31.82 as outlined on page 1 of invoice. |
| **Amount:** | $31.82 |

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|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 368.00/11 equal 33.46 as outlined on page 1 of invoice. |
| **Amount:** | $33.46 |
| **Component Description:** | Outside Professional Services Additional Legal Expenses |
| **Amount:** | $35.00 |
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 402.00/11 equal 36.55 as outlined on page 1 of invoice. |
| **Amount:** | $36.55 |

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|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 572.90/11 equal 52.08 as outlined on page 1 of invoice. |
| **Amount:** | $52.08 |

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|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses |
| **Amount:** | $69.55 |

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|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 2059.90/11 equal 187.27 as outlined on page 1 of invoice. |
| **Amount:** | $187.27 |

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|---|---|
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 3472.00/11 equal 315.63 as outlined on page 1 of invoice. |
| **Amount:** | $315.63 |
| **Component Description:** | Outside Professional Services Additional Legal Expenses |
| **Amount:** | $35.00 |
| **Component Description:** | Outside Professional Services Additional Legal Expenses |
| **Amount:** | $67.40 |
| **Component Description:** | Outside Professional Services Additional Legal Expenses Legal services benefit entire FCC Repack project across all 11 Call Signs/Facility IDs, 1617.10/11 equal 147.01 as outlined on page 1 of invoice. |
| **Amount:** | $147.01 |

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|---|---|---|
| | **Component Description:**<br><br><br><br>**Amount:**<br><br><br><br>**Component Description:**<br><br><br><br>**Amount:** | Outside Professional Services Additional Legal Expenses<br>$505.50<br><br>Outside Professional Services Additional Legal Expenses<br>$539.20 |
| FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase | Information not provided. | |
| ASR modification (prepare FCC Form 854) | Information not provided. | |
| Attorney Fees - Prepare and File request for Special Temporary Authorization | Information not provided. | |
| Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application | Information not provided. | |
| Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application | Information not provided. | |
| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application | Information not provided. | |
| Prepare request for Special Temporary Authorization | Information not provided. | |

| | |
|---|---|
| RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application | Information not provided. |
| Prepare engineering section of FCC Form 2100 (main), License to Cover Application | Information not provided. |
| RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application | Information not provided. |
| Prepare engineering section of FCC Form 2100 (main), Construction Permit Application | **Component Description:** Outside Professional Services Engineering Section FCC Form 2100 Construction Permit Application Main/Primary<br>**Amount:** $1,687.50 |
| Perform engineering study for new channel assignment and antenna development | **Component Description:** Outside Professional Services Engineering Study New Channel Assignment Antenna Development<br>**Amount:** $662.50 |

| | | |
|---|---|---|
| Project management of the transition | **Component Description:**<br><br>**Amount:** | Outside Professional Services Project Management<br>$9,022.50 |
| Prepare and or review reimbursement form | Information not provided. | |
| Address transition timing and coordination issues w/ other stations and wireless | 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** | **$91,068.00** | **$85,018.00** | | **$0.00** | |
| MVPD Notification of Channel Change | ***$5,500.00*** | $5,500.00 | Preliminary estimate of services | N/A | N/A |
| Develop and air announcement of upcoming channel change | ***$2,000.00*** | $2,000.00 | Preliminary estimate | N/A | N/A |
| Equipment Delivery and Handling Charges | ***$10,000.00*** | $10,000.00 | Preliminary estimate | N/A | N/A |
| Disposal Costs (for equipment and other waste, net of any salvage value) | ***$62,018.00*** | $62,018.00 | See attached quotes for disposal of both transmitters | N/A | N/A |
| DTV Medical Facility Notification | $11,550.00 | $5,500.00 | Preliminary estimate of service | N/A | N/A |
| **Sub-total** | $91,068.00 | $85,018.00 | N/A | $0.00 | N/A |
| **Total for all systems** | $1,646,973.00 | $1,674,201.00 | N/A | $14,600.77 | N/A |

### Components

Information not provided.

## Cost Information

### Grand Total

| | Predetermined Cost Estimate | Estimated Cost | Actual Cost |
|---|---|---|---|
| **Total for all systems** | $1,646,973.00 | $1,674,201.00 | $14,600.77 |

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

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

| | | |
|---|---|---|
| | 8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested. | |
| | I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above. | **Donald Smith**<br>*Director of New Technologies Compliance & Planning*<br><br>08/07/2018 |

## Certification

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

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

| | | |
|---|---|---|
| | 8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.<br>9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested. | |
| | I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above. | **Robert Levin**<br>*Director of Finance and Administration*<br><br>08/07/2018 |

## Attachments