



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **12855** | Service: **DTV** | Call **WUCF-TV** | Channel: **23 (UHF)** |  
ID: | Sign: |  
File **0000027360**  
Number:  
FRN: **0022163661** | Date **03/07**  
Submitted: **/2019**

## Applicant Information

### Applicant Name, Type, and Contact Information

| Applicant   | Address  | Phone                       | Email                      | Applicant Type       |
|---|--|-----------------------------|----------------------------|----------------------|
| <b>UNIVERSITY OF CENTRAL FLORIDA</b><br>Doing Business As:<br>UNIVERSITY OF CENTRAL FLORIDA | Van Nguyen<br>12201<br>RESEARCH<br>PARKWAY<br>SUITE 501<br>ORLANDO,<br>FL 32826<br>United States | +1<br>(407)<br>882-<br>1046 | VAN.<br>NGUYEN@UCF.<br>EDU | Government<br>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 |
|--|---------|-------|-------|
| The Preparer is same as the reimbursement contact. |         |       |       |

## 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   | Replace IOT transmitter with solid state, replace antenna, re-use existing line. Map and analyze tower; design & modify if needed. Flash-cut to new channel upon coordination with other stations in phase 7. |

## Transmitters

| Section                             | Question                                  | Response |
|-------------------------------------|---|----------|
| <b>Transmitter Related Expenses</b> | Do you have transmitter related expenses? | Yes      |

**Primary  
Transmitter**

**Existing Transmitter Information**

| Section   | Question   | Response                 |
|---|--|--------------------------|
| <b>Existing Transmitter<br/>Description</b>           | Type of change   | Purchase<br>New          |
|   | Use  | Primary<br>(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                      |
| <b>Existing Transmitter<br/>Manufacturer and Type</b> | Manufacturer   |                          |
|   | Model  | Paragon<br>DCXP-2        |
|   | Year   | 2003                     |
|   | Type   | Inductive<br>Output Tube |
|   | IOT Power Type   | Two                      |
|   | Power Capacity   | 50 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-72  |
|                 | Transmitter Type                          | Solid State   |
|                 | Solid State Cooling                       | Liquid Cooled   |
|                 | Solid State Power capacity                | 47.2 kW   |
|                 | Justification for New Transmitter         | The cost of this new transmitter will be less than the cost of retuning the existing transmitter. |

**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                                  | 3 inches   |
|                    | Length                                | 100.0 feet |

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

**Primary Transmitter**

**Other Transmitter Cost Not Listed**

| Name                                 | Description   |
|--------------------------------------|---|
| <b>2nd Exciter</b>                   | 2nd Exciter with auto switch over to replace existing       |
| <b>Additional Interior RF System</b> | Interior RF system to complete the transmitter installation |

**Antennas**

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

**Primary  
Antenna**

**Existing Antenna Information**

| Section   | Question   | Response           |
|---|--|--------------------|
| <b>Existing Antenna<br/>Description</b>           | Type of change   | Purchase<br>New    |
|   | Antenna Use  | Primary<br>(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?  | Yes                |
| <b>Existing Antenna<br/>Manufacturer and Type</b> | Class  | Full Power         |
|   | Mounting   | Side Mount         |
|   | Antenna position in stack  | Not in Stack       |
|   | Polarization   | Horizontal         |
|   | Type   | Slotted<br>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)<br>.....                         | 950.0 kW           |
|   |  |                    |

|              |                              |
|--------------|------------------------------|
| Manufacturer |                              |
| Model        | TFU-<br>30DSC-R<br>3C 152 DC |
| Year         | 2003                         |



**Primary  
Antenna**

**New Antenna Costs**

| Section                                       | Question   | Response              |
|---|--|-----------------------|
| <b>New Antenna<br/>Description</b>            | 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? | Yes                   |
| <b>New Antenna<br/>Manufacturer and Types</b> | Class  | Full Power            |
|   | Mounting   | Side Mount            |
|   | Antenna position in stack  | Not in Stack          |
|   | Polarization   | Elliptical            |
|   | Type   | Slotted<br>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)<br>.....                             | 1000.0 kW             |
|   | Manufacturer   |                       |
|   | Model  | ATW30HS3-<br>ESCX-34H |
|   |  |                       |

|                               |   |
|-------------------------------|---|
| Year                          | 2019  |
| Justification for New Antenna | The existing primary antenna is a single channel slotted coaxial which cannot accommodate the assigned channel. |

## Primary Antenna

### Other Antenna Costs

| Section                            | Question  | Response            |
|------------------------------------|---|---------------------|
| <b>Combiner for Shared Antenna</b> | Do you need a Combiner for a Shared Antenna?  | No                  |
|                                    | Type  |                     |
|                                    | Number of channels supported  | N/A                 |
|                                    | Frequencies of channels supported   | N/A                 |
|                                    | Frequency   | N/A                 |
|                                    | Do you need a combiner output splitter /switcher for dual feed lines?                                       | N/A                 |
| <b>Elbow Complex</b>               | Do you require the separate purchase of the Elbow Complex?  | Yes                 |
|                                    | Broadband or Single Channel?  | Single Channel      |
|                                    | Feed Line Size  | 6 1/8 inches inches |
| <b>Side Mount Brackets</b>         | Do you require the separate purchase of side mount brackets for a high power antenna?                       | Yes                 |
| <b>Pattern Scatter Analysis</b>    | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | No                  |

|                   |  |     |
|-------------------|--|-----|
| <b>Sweep Test</b> | Do you require the sweep testing of transmission line and antenna? | Yes |
|-------------------|--|-----|

**Primary  
Antenna**

**Other Antenna Cost Not Listed**

| <b>Name</b>                   | <b>Description</b>   |
|-------------------------------|--|
| <b>Interior Line Sections</b> | Interior 6-1/8" line sections to extend the transmission line to the new transmitter location inside the existing building |

**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   | Utilize Existing  |
|  | 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? | No                |
|  | Is Transmission Line in operating condition?                               | Yes               |
| Existing Transmission Line Manufacturer and Type | Manufacturer   | Dielectric        |
|  | Type   | Rigid             |
|  | Diameter   | 6 1/8 inches      |
|  | Other Diameter   | N/A               |
|  | Segment Length   | Broadband         |
|  | Other Segment Length   | N/A               |
|  | Number of parallel runs  | 1                 |
|  | Length   | 1290 feet per run |

Primary Transmission Line

Other Transmission Line Expenses Not Listed

| Name        | Description   |
|-------------|---|
| Sweep Tests | Sweep line to insure acceptable with assigned channel |

Interim Transmission Line

New Transmission Line

| Section                     | Question                                | Response                       |
|-----------------------------|---|--------------------------------|
| New Transmission Line Costs | Use                                     | Interim                        |
|                             | Description of Use                      | N/A                            |
|                             | Change Type                             | Purchase New                   |
|                             | Type                                    | Rigid                          |
|                             | Diameter                                | 6 1/8 inches                   |
|                             | Segment Length                          | 19 ¾ '                         |
|                             | Other Segment Length                    |                                |
|                             | Number of parallel runs                 | 1                              |
|                             | Length                                  | 1130 feet per run              |
|                             | Justification for New Transmission Line | Required for interim operation |

Interim 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  | Modify Existing   |
|   | Tower Use   | Primary (Main)    |
|   | Description of Use                                      | N/A               |
|   | Ownership   | Leased            |
|   | Is this tower consider Complex?                         | No                |
|   | Is this tower currently shared with any other stations? | Yes               |
|   | One or more FM, AM or TV radio broadcaster(s)           | Yes               |
|   | Others Types of Users                                   | Yes               |
|   | Is tower documented for structural analysis?            | Unknown           |
|   | Is tower compliant with Rev G?                          | Yes               |
| Existing Tower Structure Registration               | Do you have a tower registration number?                | Yes               |
|   | ASR Number  | 1026744           |
| Coordinates (NAD83 ( North American Datum of 1983)) | Latitude (NAD83)  | 28° 36' 08.0" N-  |
|   | Longitude (NAD83)                                       | 081° 05' 36.0" W- |
|   | Overall Structure Height                                | 1608.25 feet      |
|   | Support Structure Height                                | 1479.97 feet      |
|   | Ground Elevation Above Mean Sea Level (AMSL)            | 64.96 feet        |

|  |                  |  |
|--|------------------|--|
|  | Structure Type   | TOWER - Free Standing or Guyed Structure |
|  | Tower Owner      | WPOZ / Charitable Ministry Support Inc.  |
|  | Date Constructed | 01/01/1992                               |

**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 |
|-------------|-----------|---------|
| 12857       | WMFE-FM   | FM      |
| 9876        | WPOZ      | FM      |

#### Other Types of Users

| Users         |
|---------------|
| Various mwave |

#### Primary Tower

#### Tower Modification Costs

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

**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**

| Name                   | Description   |
|------------------------|---|
| Preliminary Inspection | Tower / Antenna Preliminary Installation Inspection |



**Outside  
Professional Services Costs**

| Section   | Question   | Response  |
|---|--|---|
| <b>Outside Project Management Services</b>            | Do you require outside project management services?                          | Yes   |
|   | Number of Hours  | 250   |
|   | Explanation  | It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399. |
| <b>Outside RF consulting Engineering Services</b>     | Perform engineering study for new channel assignment and antenna development | Yes   |
|   | Prepare engineering section of Form FCC Construction Permit Application      | Yes   |
|   | For Auxiliary Facility   | No  |
|   | For Main Facility  | Yes   |
|   | Prepare engineering section of Form FCC License to Cover Application         | Yes   |
|   | For Auxiliary Facility   | No  |
|   | For Main Facility  | Yes   |
|   | Prepare request for Special Temporary Authority                              | Yes   |
|   | Quantity   | 1   |
|   | Do you have Distributed Transmission System engineering services?            | N/A   |
|   | Critical Facility  | N/A   |
|   | Terrain-Shielded Facility  | N/A   |
| <b>Attorney and Other Outside Consulting Services</b> | Prepare and file Form FCC Construction Permit Application                    | Yes   |
|   |  |   |

|                                      |  |     |
|--------------------------------------|--|-----|
|                                      | For Auxiliary Facility   | No  |
|                                      | For Main Facility  | Yes |
|                                      | Prepare and file Form FCC License to Cover Application                                     | Yes |
|                                      | For Auxiliary Facility   | No  |
|                                      | For Main Facility  | Yes |
|                                      | Prepare request for Special Temporary Authority  | Yes |
|                                      | Quantity   | 1   |
|                                      | 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 | Yes |
| <b>RF Field Engineering Services</b> | Comprehensive coverage verification via field study  | Yes |
|                                      | RF exposure measurements   | No  |
|                                      | Additional Field Engineering Service   | Yes |
|                                      | Number of Days   | 14  |
|                                      |  |     |

|  |               |  |
|--|---------------|--|
|  | Justification | It will be necessary to survey the site, plan the equipment, develop specifications for purchasing, and oversee multiple vendor RF projects. |
|--|---------------|--|

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

## Other Expenses

| Section                             | Question   | Response |
|-------------------------------------|--|----------|
| <b>AM Pattern Disturbance</b>       | Is an Impact Study needed?   | No       |
|                                     | Is Remediation needed?   | No       |
| <b>Facility Expenses</b>            | Name   | N/A      |
|                                     | Other Distributed Transmission System Expenses Not listed  | N/A      |
|                                     | Name   | N/A      |
|                                     | Is Notification of a Medical Facility required as a result of DTV broadcasting?                                      | Yes      |
| <b>Permit and Filing Costs</b>      | Local Zoning   | 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       |
| <b>Other Miscellaneous Expenses</b> | Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?        | Yes      |
|                                     | Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs? | Yes      |
|                                     | Does this relocation require Equipment Storage?  | Yes      |
|                                     | Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?     | Yes      |
|                                     | Does this relocation require MVPD Notification of a Channel Change?  | Yes      |

|                           |   |
|---------------------------|---|
| <b>Other<br/>Expenses</b> | <b>Other Expenses Not Listed</b><br>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 |
|---|-----------------------------|-----------------------|---|---------------------|---------------------------|
| <b>Primary Transmitter ULXTE-72</b>         | <b>\$1,628,117.56</b>       | <b>\$1,455,128.70</b> |   | <b>\$706,489.35</b> |                           |
| Additional Interior RF System               | <i>\$71,217.56</i>          | \$71,217.56           | See attached uploaded Revised Transition Plan November 2018 | \$35,608.78         | N/A                       |
| 2nd Exciter                                 | <i>\$14,950.00</i>          | \$14,950.00           | See attached uploaded Revised Transition Plan November 2018 | \$7,475.00          | N/A                       |
| 3" Rigid Conduit and Wiring (Cost per foot) | \$5,200.00                  | \$5,000.00            | N/A   | N/A                 | N/A                       |
| Transformer 3 phase /480v - 150 KVA         | \$25,550.00                 | \$9,983.62            | See attached uploaded Revised Transition Plan November 2018 | \$4,991.81          | N/A                       |
| Switchgear - industrial 800 amp             | \$38,200.00                 | \$37,150.00           | N/A   | N/A                 | N/A                       |

|   |                |                |  |              |     |
|---|----------------|----------------|--|--------------|-----|
| UHF -<br>Liquid<br>Cooled<br>Solid State<br>Transmitter<br>35 - 50 kW | \$1,473,000.00 | \$1,316,827.52 | See<br>attached<br>uploaded<br>Revised<br>Transition<br>Plan<br>November<br>2018 | \$658,413.76 | N/A |
| <b>Sub-total</b>  | \$1,628,117.56 | \$1,455,128.70 | N/A  | \$706,489.35 | N/A |
| <b>Total for all<br/>systems</b>                                      | \$2,860,112.36 | \$2,364,357.75 | N/A  | \$863,557.57 | N/A |

## Components

| Actual Information  |  |
|---|--|
| Description   | File Name  |
| Additional Interior RF System                             | <b>Component Description:</b> Line C on invoice<br><b>Amount:</b> \$35,608.78                |
| 2nd Exciter   | <b>Component Description:</b> Line A on invoice<br><b>Amount:</b> \$7,475.00                 |
| 3" Rigid Conduit and Wiring<br>(Cost per foot)            | Information not provided.  |
| Transformer 3 phase/480v -<br>150 KVA                     | <b>Component Description:</b> Line D on invoice<br><b>Amount:</b> \$4,991.81                 |
| Switchgear - industrial 800<br>amp                        | Information not provided.  |
| UHF - Liquid Cooled Solid<br>State Transmitter 35 - 50 kW | <b>Component Description:</b> Lines A, B, and E<br>on invoice<br><b>Amount:</b> \$658,413.76 |

## Cost Information

### Antennas

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

| Description  | Predetermined Cost Estimate | Estimated Cost      | Estimated Cost Justification                                | Actual Cost        | Actual Cost Justification |
|--|-----------------------------|---------------------|---|--------------------|---------------------------|
| <b>Primary Antenna ATW30HS3-ESCX-34H</b>   | <b>\$294,064.80</b>         | <b>\$275,850.05</b> |   | <b>\$82,755.02</b> |                           |
| Interior Line Sections   | <i>\$20,134.80</i>          | \$20,134.80         | See attached uploaded Revised Transition Plan November 2018 | \$6,040.44         | N/A                       |
| Side mount brackets for high power antennas (if not included in antenna base cost) | \$23,150.00                 | \$10,860.00         | See attached uploaded Revised Transition Plan November 2018 | \$3,258.00         | N/A                       |
| Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)   | \$12,300.00                 | \$6,855.25          | See attached uploaded Revised Transition Plan November 2018 | \$2,056.58         | N/A                       |



|   |                     |                |   |              |     |
|---|---------------------|----------------|---|--------------|-----|
| Sweep test of existing antenna  | \$6,730.00          | \$6,250.00     | See attached uploaded Revised Transition Plan November 2018 | \$1,875.00   | N/A |
| UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized | <b>\$231,750.00</b> | \$231,750.00   | See attached uploaded Revised Transition Plan November 2018 | \$69,525.00  | N/A |
| <b>Sub-total</b>  | \$294,064.80        | \$275,850.05   | N/A   | \$82,755.02  | N/A |
| <b>Total for all systems</b>  | \$2,860,112.36      | \$2,364,357.75 | N/A   | \$863,557.57 | N/A |

## Components

| Actual Information   |  |
|--|--|
| Description  | File Name  |
| Interior Line Sections   | <p><b>Component Description:</b> Transmission Line System</p> <p><b>Amount:</b> \$6,040.44</p>       |
| Side mount brackets for high power antennas (if not included in antenna base cost) | <p><b>Component Description:</b> ATW30HS3-ESCX-34H &amp; Mounts</p> <p><b>Amount:</b> \$3,258.00</p> |

|   |  |
|---|--|
| Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)                                    | <b>Component Description:</b> Transmission Line System<br><b>Amount:</b> \$2,056.58    |
| Sweep test of existing antenna  | <b>Component Description:</b> System Sweep<br><b>Amount:</b> \$1,875.00                |
| UHF - High Power, Side Mount, basic slot antenna, 1000 kW input, directional,, elliptically or circularly polarized | <b>Component Description:</b> ATW30HS3-ESCX-34H & Mounts<br><b>Amount:</b> \$69,525.00 |

## 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 |
|--|-----------------------------|-----------------------|---|---------------------|---------------------------|
| <b>Interim Transmission Line</b>         | <b>\$228,260.00</b>         | <b>\$0.00</b>         |   | <b>\$0.00</b>       |                           |
| Rigid Transmission Line - copper, 6 1/8" | \$228,260.00                | \$0.00                | Not Needed. See attached uploaded Revised Transition Plan November 2018 | N/A                 | N/A                       |
| <b>Primary Transmission Line</b>         | <b>\$6,400.00</b>           | <b>\$6,400.00</b>     |   | <b>\$4,172.00</b>   |                           |
| Sweep Tests                              | <i>\$6,400.00</i>           | \$6,400.00            | N/A   | \$4,172.00          | N/A                       |
| <b>Sub-total</b>                         | <b>\$234,660.00</b>         | <b>\$6,400.00</b>     | <b>N/A</b>  | <b>\$4,172.00</b>   | <b>N/A</b>                |
| <b>Total for all systems</b>             | <b>\$2,860,112.36</b>       | <b>\$2,364,357.75</b> | <b>N/A</b>  | <b>\$863,557.57</b> | <b>N/A</b>                |

### Components

| Actual Information                       |                           |
|--|---------------------------|
| Description                              | File Name                 |
| Rigid Transmission Line - copper, 6 1/8" | Information not provided. |

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Sweep Tests

**Component Description:**

Provide line sweeping and diagnostics with report on two transmission line systems.

**Amount:**

\$3,675.00

**Component Description:**

Perform system diagnostics for ability to sweep 75 OHM line without tower crew. Set up sample sections and adaptations to determine viability of testing.

**Amount:**

\$497.00

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## 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 |
|---|-----------------------------|-----------------------|---|---------------------|---------------------------|
| <b>Primary Tower TOWER</b>  | <b>\$393,100.00</b>         | <b>\$304,729.00</b>   |   | <b>\$52,763.70</b>  |                           |
| Preliminary Inspection  | <i>\$12,000.00</i>          | \$12,000.00           | See attached uploaded Revised Transition Plan November 2018 | \$12,000.00         | N/A                       |
| Tall Tower (greater than 500')                                    | \$210,500.00                | \$135,879.00          | See attached uploaded Revised Transition Plan November 2018 | \$40,763.70         | N/A                       |
| Structural engineering tower load study for well documented tower | \$12,600.00                 | \$6,850.00            | See attached uploaded Revised Transition Plan November 2018 | N/A                 | N/A                       |
| Minor tower reinforcement /modifications                          | \$158,000.00                | \$150,000.00          | N/A   | N/A                 | N/A                       |
| <b>Sub-total</b>  | <b>\$393,100.00</b>         | <b>\$304,729.00</b>   | <b>N/A</b>  | <b>\$52,763.70</b>  | <b>N/A</b>                |
| <b>Total for all systems</b>                                      | <b>\$2,860,112.36</b>       | <b>\$2,364,357.75</b> | <b>N/A</b>  | <b>\$863,557.57</b> | <b>N/A</b>                |

### Components

| Actual Information  |                               |                         |
|---|-------------------------------|-------------------------|
| Description   | File Name                     |                         |
| Preliminary Inspection  | <b>Component Description:</b> | Pre-Installation Survey |
|   | <b>Amount:</b>                | \$6,000.00              |
|   | <b>Component Description:</b> | Pre-Installation Survey |
|   | <b>Amount:</b>                | \$6,000.00              |
| Tall Tower (greater than 500')                                    | <b>Component Description:</b> | Installation of Antenna |
|   | <b>Amount:</b>                | \$40,763.70             |
| Structural engineering tower load study for well documented tower | Information not provided.     |                         |
| Minor tower reinforcement /modifications                          | Information not provided.     |                         |

## Cost Information

### Outside Professional Services

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

| Description   | Predetermined Cost Estimate | Estimated Cost      | Estimated Cost Justification   | Actual Cost        | Actual Cost Justification |
|---|-----------------------------|---------------------|--|--------------------|---------------------------|
| <b>Outside Professional Services</b>  | <b>\$186,620.00</b>         | <b>\$199,250.00</b> |  | <b>\$17,377.50</b> |                           |
| Additional Field Engineering Service, 14 Days                                       | <i>\$28,000.00</i>          | \$28,000.00         | N/A  | \$6,062.50         | N/A                       |
| Comprehensive coverage verification via field study, if needed                      | \$84,200.00                 | \$80,000.00         | 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 - Negotiation of lease and other matters for shared locations         | \$4,210.00                  | \$25,000.00         | The station's legal representative recommends \$25,000 to cover this effort. | 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                       |

|  |             |             |     |            |     |
|--|-------------|-------------|-----|------------|-----|
| Perform engineering study for new channel assignment and antenna development         | \$7,360.00  | \$7,000.00  | N/A | \$4,500.00 | N/A |
| Address transition timing and coordination issues w/ other stations and wireless     | \$2,630.00  | \$2,500.00  | N/A | N/A        | N/A |
| Prepare and or review reimbursement form   | \$2,630.00  | \$2,500.00  | N/A | \$2,500.00 | N/A |
| Project management of the transition   | \$39,500.00 | \$37,500.00 | N/A | \$1,315.00 | N/A |
| Prepare engineering section of FCC Form 2100 (main), Construction Permit Application | \$3,155.00  | \$3,000.00  | N/A | \$3,000.00 | N/A |
| Prepare engineering section of FCC Form 2100 (main), License to Cover Application    | \$1,580.00  | \$1,500.00  | N/A | N/A        | N/A |
| Prepare request for Special Temporary Authorization                                  | \$2,050.00  | \$1,500.00  | N/A | N/A        | N/A |



|  |                |                |     |              |     |
|--|----------------|----------------|-----|--------------|-----|
| Attorney Fees -<br>Prepare and<br>File FCC Form<br>2100 (main),<br>Construction<br>Permit<br>Application | \$5,260.00     | \$5,000.00     | N/A | \$0.00       | N/A |
| <b>Sub-total</b>   | \$186,620.00   | \$199,250.00   | N/A | \$17,377.50  | N/A |
| <b>Total for all<br/>systems</b>   | \$2,860,112.36 | \$2,364,357.75 | N/A | \$863,557.57 | N/A |

## Components

| Actual Information   |   |
|--|---|
| Description  | File Name   |
| Additional Field<br>Engineering Service, 14<br>Days                                | <p><b>Component Description:</b> Other engineering services in connection the repack of WUCF, including preliminary RF system design</p> <p><b>Amount:</b> \$6,062.50</p> |
| Comprehensive coverage verification via field study, if needed                     | Information not provided.   |
| Attorney Fees - Prepare and File request for Special Temporary Authorization       | Information not provided.   |
| Attorney Fees - Negotiation of lease and other matters for shared locations        | Information not provided.   |
| Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application | Information not provided.   |

|  |  |
|--|--|
| Perform engineering study for new channel assignment and antenna development     | <p><b>Component Description:</b></p> <p>Perform engineering study for new channel assignment and antenna development</p> <p><b>Amount:</b></p> <p>\$4,500.00</p> |
| Address transition timing and coordination issues w/ other stations and wireless | Information not provided.  |
| Prepare and or review reimbursement form   | <p><b>Component Description:</b></p> <p>Prepare or Review FCC Form 399 for Reimbursement</p> <p><b>Amount:</b></p> <p>\$2,500.00</p>                             |

Project management of the transition

**Component Description:** Prepare Schedule 387 Progress Report 4Q2017 during January 1-10, 2018 for WUCF

**Amount:** \$225.00

**Component Description:** Prepare Schedule 387 Progress Report 2018 Q1 during January 1-10, 2018

**Amount:** \$225.00

**Component Description:** Review equipment for 399 Amendment

**Amount:** \$265.00

**Component Description:** Preparation of FCC Schedule 387 Progress Report

**Amount:** \$300.00

**Component Description:** DTV Repack Services: Prep and submit For 387 Transition Plan Progress Report

**Amount:** \$150.00

**Component Description:** DTV Repack Services: Form 387 Transition Plan Progress Report

**Amount:** \$150.00

|  |   |
|--|---|
| Prepare engineering section of FCC Form 2100 (main), Construction Permit Application   | <p><b>Component Description:</b></p> <p>Prepare engineering section of Form FCC Construction Permit Application for Main Facility</p> <p><b>Amount:</b></p> <p>\$3,000.00</p> |
| Prepare engineering section of FCC Form 2100 (main), License to Cover Application      | Information not provided.   |
| Prepare request for Special Temporary Authorization                                    | Information not provided.   |
| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application | Information not provided.   |

## Cost Information

### Other Expenses

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

| Description  | Predetermined Cost Estimate | Estimated Cost      | Estimated Cost Justification | Actual Cost   | Actual Cost Justification |
|--|-----------------------------|---------------------|------------------------------|---------------|---------------------------|
| <b>Other Expenses</b>  | <b>\$123,550.00</b>         | <b>\$123,000.00</b> |                              | <b>\$0.00</b> |                           |
| Equipment Delivery and Handling Charges                                  | <i>\$25,000.00</i>          | \$25,000.00         | N/A                          | N/A           | N/A                       |
| Disposal Costs (for equipment and other waste, net of any salvage value) | <i>\$25,000.00</i>          | \$25,000.00         | N/A                          | N/A           | N/A                       |
| MVPD Notification of Channel Change                                      | <i>\$2,000.00</i>           | \$2,000.00          | N/A                          | N/A           | N/A                       |
| Develop and air announcement of upcoming channel change                  | <i>\$10,000.00</i>          | \$10,000.00         | N/A                          | N/A           | N/A                       |
| Equipment Storage  | <i>\$25,000.00</i>          | \$25,000.00         | N/A                          | N/A           | N/A                       |
| DTV Medical Facility Notification  | \$11,550.00                 | \$11,000.00         | N/A                          | N/A           | N/A                       |
| Non-zoning permits   | <i>\$25,000.00</i>          | \$25,000.00         | N/A                          | N/A           | N/A                       |
| <b>Sub-total</b>   | \$123,550.00                | \$123,000.00        | N/A                          | \$0.00        | N/A                       |
| <b>Total for all systems</b>   | \$2,860,112.36              | \$2,364,357.75      | N/A                          | \$863,557.57  | N/A                       |

## Components

Information not provided.

**Cost  
Information**

**Grand Total**

|                              | <b>Predetermined<br/>Cost Estimate</b> | <b>Estimated Cost</b> | <b>Actual Cost</b> |
|------------------------------|--|-----------------------|--------------------|
| <b>Total for all systems</b> | \$2,860,112.36                         | \$2,364,357.75        | \$863,557.57       |

**Reimbursement Status**

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

| Certification | Section                                     | Question  | Response |
|---------------|---|---|----------|
|               | Submission of Estimated Expenses Statements | <p>WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.</p>   |          |
|               |   | <ol style="list-style-type: none"> <li>1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity.</li> <li>2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.</li> </ol> |          |



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

|   |   |
|---|---|
| <p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p> |   |
| <p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>   | <p><b>Van<br/>Nguyen</b><br/><i>Contract<br/>and Grant<br/>Accountant I</i></p> <p>03/07/2019</p> |

| Certification | Section  | Question   | Response |
|---------------|--|--|----------|
|               | Submission of Actual Cost Documentation Statements | <p>WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS 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 AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).</p>   |          |
|               |  | <ol style="list-style-type: none"> <li>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.</li> <li>2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.</li> <li>3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> </ol> |          |

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.

|  |  |
|--|--|
| <p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>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.</p> |  |
| <p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>  | <p><b>Van Nguyen</b><br/> <i>Contract and Grant Accountant I</i></p> <p>03/07/2019</p> |

## Attachments