

Federal Communications Commission

(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

| Facility | 69271 | Service: DTV | Call | WEKW-TV | Channel: 18 (UHF) |
|-----------------|----------|--------------|-------|---------|-------------------|
| ID: | | | Sign: | | |
| File 0000027760 | | | | | |
| Number: | | | | | |
| FRN: 002 | 21895115 | Date | 02/27 | | |
| | | Submitted: | /2019 | | |

Applicant Name, Type, and Contact Information

Information

| Applicant | Address | Phone | Email | Applicant Type |
|--|--|-----------------------------|--------------------------|--------------------|
| NEW HAMPSHIRE PUBLIC BROADCASTING Doing Business As: NEW HAMPSHIRE PUBLIC BROADCASTING | Dawn DeAngelis 268 MAST ROAD DURHAM, NH 03824 United States | +1 (603) 868- 4304 | ddeangelis@nhpbs. org | Not-for- Profit |

Reimbursement Contact Name and Information Reimbursement Contact Information

| Applicant | Address | Phone | Email |
|----------------|---------|-------|-------|
| [Confidential] | | | |

Preparer Contact Name and Information

| Contact Information | Applicant | Address | Phone | Email |
|------------------------|---|---|----------------------|-------------------------------|
| | Ryan Wilhour ConsultingEngineer Kessler and Gehman Associates, Inc. | 507 NW 60th ST STE D Gainesville, FL 32607 United States | +1 (352) 332-3157 | ryan@kesslerandgehman. com |

| Broadcaster Information and Transition Plan | Question | Response |
|---|--|--|
| | Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information. | Yes |
| | Briefly describe transition plan | Replace transmitter, antenna and transmission line. Acquire interim antenna and line for continued operation during construction and duration of the assigned phase. Map and analyze tower; design and implement modifications if required. |

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

| Auxiliary | Add Transmitter Information | | | | | |
|-------------|-------------------------------------|--|-----------------------|--|--|--|
| Fransmitter | Section | Question | Response | | | |
| | Existing Transmitter Description | Type of change | Purchase New | | | |
| | | Use | Auxiliary (Backup) | | | |
| | | Description of Use | Auxiliary | | | |
| | | 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 | | | | |
| | Manufacturer and Type | Model | NV7250 | | | |
| | | Year | 2002 | | | |
| | | Туре | Solid State | | | |
| | | Solid State Cooling | Liquid Cooled | | | |
| | | Solid State Power Capacity | 4 kW | | | |

| Auxiliary | New Transmitter Costs | | | | | |
|-------------|-----------------------|---|--|--|--|--|
| Transmitter | Section | Question | Response | | | |
| | New Transmitter | Use | Auxiliary (Backup) | | | |
| | | Change Type | Purchase New | | | |
| | | Is this a request for upgraded equipment? | No | | | |
| | | Manufacturer | | | | |
| | | Model | TBD | | | |
| | | Transmitter Type | Solid State | | | |
| | | Solid State Cooling | Liquid Cooled | | | |
| | | Solid State Power capacity | 4 kW | | | |
| | | Justification for New Transmitter | The manufacturer of the existing transmitter advises that the transmitter cannot be retuned to the assigned channel. See attachment. | | | |

| Auxiliary 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 | 100.0 feet |
| | Other Electrical Service | No |
| | Description | N/A |
| HVAC Service | Does the replacement transmitter require HVAC Service? | No |
| | Туре | 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 Other Transmitter Cost Not Listed

Transmitter Information not provided.

| Primary | Existing Transmitter Information | | | | | |
|-------------|-------------------------------------|--|-------------------|--|--|--|
| Transmitter | 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 | | | | |
| | Manufacturer and Type | Model | AT7105K0 | | | |
| | | Year | 2011 | | | |
| | | Туре | Solid State | | | |
| | | Solid State Cooling | Air Cooled | | | |
| | | Solid State Power Capacity | 5 kW | | | |

Existing Transmitter Information

| Primary | New Transmitter Costs | | | | | |
|-------------|-----------------------|---|--|--|--|--|
| Transmitter | Section | Question | Response | | | |
| | New Transmitter | Use | Primary (Main) | | | |
| | | Change Type | Purchase New | | | |
| | | Is this a request for upgraded equipment? | No | | | |
| | | Manufacturer | | | | |
| | | Model | TBD | | | |
| | | Transmitter Type | Solid State | | | |
| | | Solid State Cooling | Air Cooled | | | |
| | | Solid State Power capacity | 5 kW | | | |
| | | Justification for New Transmitter | The manufacturer of the existing transmitter advises that the transmitter cannot be retuned to the assigned channel. See attachment. | | | |

| 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 |
| HVAC Service | Does the replacement transmitter require HVAC Service? | No |
| | Туре | 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 Name Description Standby Exciter and Switch Standby Exciter with Automatic Change Over Switch Additional Interior RF System Interior RF System Existing Transmitter to Interim Transmission line

| Antennas Section | | Question | Response |
|------------------|---------------|---------------------------------------|----------|
| Antenna Rela | ated Expenses | Do you have antenna related expenses? | Yes |

| 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? | No | |
| | | Is antenna in operating condition? | Yes | |
| | | Is antenna located on or in close proximity to an antenna farm? | No | |
| | Existing Antenna Manufacturer and Type | Class | Full Power | |
| | | Mounting | Top Mount | |
| | | Antenna position in stack | Not in Stack | |
| | | Polarization | Horizontal | |
| | | Туре | Broadband Panel | |
| | | Number of Stations Supported | 1 | |
| | | Number of Panels | 48 | |
| | | Design power capacity in use | 35.0 % | |
| | | Lower Limit | 470.00 MHz | |
| | | Upper Limit | 860.00 MHz | |
| | | Other Antenna Type | N/A | |
| | | ERP: (Effective Radiated Power) | 112.0 kW | |

| Manufacturer | |
|--------------|------------------|
| Model | 9551310- 4660 |
| Year | 2002 |

| 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? | No | |
| | | Will antenna be located on or in close proximity to an antenna farm? | No | |
| | New Antenna Manufacturer and Types | Class | Full Power | |
| | | Mounting | Top Mount | |
| | | Antenna position in stack | Not in Stack | |
| | | Polarization | Horizontal | |
| | | Туре | 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) | 66.0 kW | |
| | | Manufacturer | | |
| | | Model | TBD | |
| | - | | | |

| Year | 2018 |
|-------------------------------|-------------|
| Justification for New Antenna | This is a |
| | large |
| | change in |
| | channels |
| | from 49 to |
| | 18 and the |
| | existing |
| | primary |
| | broadband |
| | antenna ha |
| | not been |
| | performance |
| | tested on |
| | the |
| | assigned |
| | channel. |
| | The station |
| | will use |
| | existing if |
| | possible. |
| | ERP is from |
| | 1% |
| | expansion. |

Primary Other Antenna Costs

| Filliary | | | |
|----------|--------------------------------|---|-------------------|
| Antenna | Section | Question | Response |
| | Combiner for Shared Antenna | Do you need a Combiner for a Shared Antenna? | No |
| | | Туре | |
| | | 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 | 4 1/16 inches inches |
|--------------------------|---|----------------------------|
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for a high power antenna? | No |
| Pattern Scatter Analysis | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | No |
| Sweep Test | Do you require the sweep testing of transmission line and antenna? | Yes |

Primary Other Antenna Cost Not Listed

Antenna Informatio

Information not provided.

| Interim Antenna | New Antenna Costs | | | |
|--------------------|--------------------------------------|--|--------------------|--|
| | Section | Question | Response | |
| | New Antenna Description | Use | Interim | |
| | | Description of Use | N/A | |
| | | Change Type | Purchase New | |
| | | Ownership | Owned | |
| | | Owner | N/A | |
| | | Is antenna shared? | No | |
| | | Is antenna directional? | No | |
| | | Will antenna be located on or in close proximity to an antenna farm? | No | |
| | New Antenna Manufacturer and Type | Class | Full Power | |
| | | Mounting | Side Mount | |
| | | Antenna position in stack | Not in Stack | |
| | | Polarization | Horizontal | |
| | | Туре | 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) | 112.0 kW | |
| | | Manufacturer | | |
| | | Model | TBD | |
| | | Year | 2018 | |
| | | | | |

| Justification for New Antenna | An interim |
|-------------------------------|--------------|
| | antenna is |
| | necessary |
| | to keep |
| | station on |
| | the air |
| | during |
| | primary |
| | antenna |
| | replacement |
| | and for the |
| | duration of |
| | the |
| | assigned |
| | phase. |
| | Station will |
| | attempt to |
| | rent if |
| | renting is |
| | available at |
| | time of |
| | acquisition. |

Interim

Other Antenna Costs

Antenna

| Section | Question | Response |
|--------------------------|---|--------------|
| Elbow Complex | Do you require the separate purchase of the Elbow Complex? | Yes |
| | Broadband or Single Channel? | S |
| | Feed Line Size | 3 1/8 inches |
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for an 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 |

Interim Other Antenna Cost Not Listed

Antenna Information not provided.

| Transmissior | n Seffien | Question | Response |
|--------------|---------------------------------------|---|----------|
| | Transmission Line Related Expenses | Do you have transmission line related expenses? | Yes |

| Primary | Existing Transmission Line | | | |
|-------------|--|--|---------------------|--|
| Transmissio | n Line Section | Question | Response | |
| | Existing Transmission Line Description | Type of change | Purchase New | |
| | | Use | Primary (Main) | |
| | | Description of Use | N/A | |
| | | Ownership | Owned | |
| L | | 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 | | |
| | | Туре | Rigid | |
| | | Diameter | 4 1/16 inches | |
| | | Other Diameter | N/A | |
| | | Segment Length | 19 3/4 inches | |
| | | Other Segment Length | N/A | |
| | | Number of parallel runs | 1 | |
| | | Length | 475 feet per run | |

| Primary | New Transmission Line | | |
|-------------|--------------------------------|---|---------------------|
| Transmissio | on Line Section | Question | Response |
| | New Transmission Line Costs | Use | Primary (Main) |
| | | Description of Use | N/A |
| | | Change Type | Purchase New |
| | | Is this a request for upgraded equipment? | No |
| | | Туре | Rigid |
| | | Diameter | 4 1/16 inches |
| | | Other Diameter | N/A |
| | | Segment Length | 20 inches |
| | | Other Segment Length | N/A |
| | | Number of parallel runs | 1 |
| | | Length | 480 feet per run |
| | | | 1 |

| Justification for New Transmission Line |
|---|

Other Transmission Line Expenses Not Listed Transmission

| Interim | New Transmission Line | | | |
|-------------|--------------------------------|---|---|--|
| Transmissio | n Line Section | Question | Response | |
| | New Transmission Line Costs | Use | Interim | |
| | | Description of Use | N/A | |
| | | Change Type | Purchase New | |
| | | Туре | Flexible Air | |
| | | Diameter | 3 inches | |
| | | Segment Length | N/A | |
| | | Other Segment Length | | |
| | | Number of parallel runs | 1 | |
| | | Length | 380 feet per run | |
| | | Justification for New Transmission Line | An interim transmission line is necessary to keep station on the air during primary line replacement. Station will attempt to rent if renting is available at time of acquisition. | |

Other Transmission Line Expenses Not Listed Transmission

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

| Primary Tower | Section | Question | Response |
|------------------|---|---|----------------------|
| | Existing Tower Description | Type of change | Modify Existing |
| | | 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? | Yes |
| | | One or more FM, AM or TV radio broadcaster(s) | Yes |
| | | Others Types of Users | Yes |
| | | Is tower documented for structural analysis? | No |
| | | Is tower compliant with Rev G? | Yes |
| | Existing Tower Structure Registration | Do you have a tower registration number? | No |
| | | ASR Number | |
| | Coordinates (<u>NAD83</u> (North American Datum of 1983)) | Latitude (NAD83) | 43° 01' 59.9" N- |
| | | Longitude (NAD83) | 072° 22' 02.0" W- |
| | | Overall Structure Height | 499.99 feet |
| | | Support Structure Height | 455.05 feet |
| | | Ground Elevation Above Mean Sea Level (AMSL) | 1517.04 feet |
| | | | |

| Structure Type | TOWER - Free Standing or Guyed Structure |
|------------------|--|
| Tower Owner | New Hampshire Public Broadcasting |
| Date Constructed | 01/01/1967 |

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 |
|-------------|-----------|---------|
| 48440 | WEVN | FM |
| 48413 | WVMA-CD | DTV |
| 46334 | WKKN | FM |
| 36834 | WKNE | FM |

Other Types of Users

Users

12 mwave dishes

Primary Tower Modification Costs

Tower

| Section | Question | Response |
|-------------------|--|---|
| Engineering Study | Please what type of engineering study is required, if any: | Study needed for undocumented /poorly documented tower |

| Tower Reinforcements | Please select whether tower reinforcements are needed: | Major Reinforcements needed |
|----------------------|--|-----------------------------------|
|----------------------|--|-----------------------------------|

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

Other Tower Expenses Not Listed

Primary Tower Information not provided.

| Outside | Section | Question | Response |
|--------------|--|--|---|
| Professional | Services Costs Outside Project Management Services | Do you require outside project management services? | Yes |
| | | Number of Hours | 40 |
| | | Explanation | It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399. Station does not have available personnel or personnel trained in project management for such complex projects. |
| | Outside RF consulting Engineering Services | Perform engineering study for new channel assignment and antenna development | Yes |
| | | Prepare engineering section of Form FCC Construction Permit Application | Yes |
| | | For Auxiliary Facility | No |
| | | For Main Facility | Yes |
| | | Prepare engineering section of Form FCC License to Cover Application | Yes |
| | | For Auxiliary Facility | No |
| | | For Main Facility | Yes |
| | | Prepare request for Special Temporary Authority | 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 | Prepare and file Form FCC Construction Permit Application | Yes |
| Services | 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 | 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 | Yes |
| | RF exposure measurements | No |
| | Additional Field Engineering Service | Yes |

| Number of Days | 6 |
|----------------|---|
| Justification | It will be necessary to survey the site, plan the equipment, develop specifications for purchasing, and oversee multiple vendor RF projects. Station does not have available personnel trained in such services. |

Outside Other Professional Services Expenses Not Listed

| Professional | Services Costs | Description |
|--------------|----------------------------|--|
| | Other Legal Services | Legal services not specifically listed under Outside Professional Services |
| | Other Engineering Services | Engineering services not specifically listed under Outside Professional Services |

| Other | Section | Question | Response |
|----------|---------------------------------|--|----------|
| Expenses | 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 Not Listed

Expenses Information not provided.

Transmitters

Cost Information

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 TBD | \$470,450.00 | \$455,500.00 | | \$128.89 | |
| UHF - Air Cooled Solid State Transmitter 4 - 6 kW | \$236,500.00 | \$225,000.00 | N/A | \$128.89 | N/A |
| Standby Exciter and Switch | \$25,000.00 | \$25,000.00 | N/A | N/A | N/A |
| Additional Interior RF System | \$140,000.00 | \$140,000.00 | N/A | N/A | N/A |
| 3" Rigid Conduit and Wiring (Cost per foot) | \$5,200.00 | \$4,900.00 | N/A | N/A | N/A |
| Transformer 3 phase /480v - 150 KVA | \$25,550.00 | \$24,300.00 | N/A | N/A | N/A |
| Switchgear - industrial 800 amp | \$38,200.00 | \$36,300.00 | N/A | N/A | N/A |
| Auxiliary Transmitter TBD | \$291,350.00 | \$288,100.00 | | \$0.00 | |
| 2" Rigid Conduit and Wiring (Cost per foot) | \$2,600.00 | \$2,500.00 | N/A | N/A | N/A |

| Transformer 3 phase /480v - 150 KVA | \$25,550.00 | \$24,300.00 | N/A | N/A | N/A |
|---|----------------|----------------|-----|-------------|-----|
| Switchgear - industrial 800 amp | \$38,200.00 | \$36,300.00 | N/A | N/A | N/A |
| UHF - Liquid Cooled Solid State Transmitter 4 kW | \$225,000.00 | \$225,000.00 | N/A | N/A | N/A |
| Sub-total | \$761,800.00 | \$743,600.00 | N/A | \$128.89 | N/A |
| Total for all systems | \$2,031,970.00 | \$1,958,835.00 | N/A | \$20,301.29 | N/A |

Components

| Actual Information Description | File Name | |
|--|---------------------------|--|
| UHF - Air Cooled Solid State Transmitter 4 - 6 kW | Component Description: | Support Base for backup TX heat exchanger - preparation for new transmitter installation \$53.48 |
| | Component Description: | Parts to move existing transmitter heat exchanger to create space for |
| | Amount: | new transmitter. \$75.41 |
| Standby Exciter and Switch | Information not provided. | |
| Additional Interior RF System | Information not provided. | |

| 3" Rigid Conduit and Wiring (Cost per foot) | Information not provided. |
|---|---------------------------|
| Transformer 3 phase/480v - 150 KVA | Information not provided. |
| Switchgear - industrial 800 amp | Information not provided. |
| 2" Rigid Conduit and Wiring (Cost per foot) | Information not provided. |
| Transformer 3 phase/480v - 150 KVA | Information not provided. |
| Switchgear - industrial 800 amp | Information not provided. |
| UHF - Liquid Cooled Solid State Transmitter 4 kW | Information not provided. |

Antennas

Cost Information

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

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|--|--------------------------------|-------------------|---------------------------------|----------------|------------------------------|
| Interim Antenna TBD | \$132,140.00 | \$125,800.00 | | \$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 |
| Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed) | \$7,600.00 | \$7,400.00 | N/A | N/A | N/A |
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | N/A | N/A | N/A |

| UHF - Lower Power Side Mount, One station antenna - medium power (50- 200 kW), horizontally polarized | \$89,400.00 | \$85,000.00 | N/A | N/A | N/A |
|---|--------------|--------------|---|------------|-----|
| Primary Antenna TBD | \$263,300.00 | \$252,575.00 | | \$8,475.00 | |
| Elbow complex, single channel, at antenna input, per 4 1/16. feedline (if needed) | \$9,570.00 | \$9,100.00 | N/A | N/A | N/A |
| Sweep test of existing antenna | \$6,730.00 | \$8,475.00 | The contractor needed to add adapters to connect to the existing line to perform the Sweep measurements. The adapters are in the quote. | \$8,475.00 | t |
| UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized | \$247,000.00 | \$235,000.00 | N/A | N/A | N/A |
| | | | | | |

| Total for | \$2,031,970.00 | \$1,958,835.00 | N/A | \$20,301.29 | N/A |
|-----------|----------------|----------------|-----|-------------|-----|
| all | | | | | |
| systems | | | | | |

Components

| Actual Information Description | File Name | | |
|---|---------------------------|--|--|
| Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost) | Information not provided. | | |
| Side mount brackets for high power antennas (if not included in antenna base cost) | Information not provided. | | |
| Elbow complex, single channel, at antenna input, per 3 1/8. feedline (if needed) | Information not provided. | | |
| Sweep test of existing antenna | Information not provided. | | |
| UHF - Lower Power Side Mount, One station antenna - medium power (50-200 kW), horizontally polarized | Information not provided. | | |
| Elbow complex, single channel, at antenna input, per 4 1/16. feedline (if needed) | Information not provided. | | |
| Sweep test of existing | | | |
| antenna | Component Description: | Adapters to facilitate Sweep tests | |
| | Amount: | \$2,075.00 | |
| | Component Description: | Sweep of existing Myat broadband line and MCI panel antenna | |
| | Amount: | \$6,400.00 | |

Information not provided.

UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized

Transmission Line

Cost Information

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

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|--|--------------------------------|-------------------|------------------------------------|----------------|------------------------------|
| Interim Transmission Line | \$22,420.00 | \$21,280.00 | | \$0.00 | |
| Flexible Air Transmission Line - dielectric, 3" | \$22,420.00 | \$21,280.00 | N/A | N/A | N/A |
| Primary Transmission Line | \$68,160.00 | \$64,800.00 | | \$0.00 | |
| Rigid Transmission Line - copper, 4 1 /16" | \$68,160.00 | \$64,800.00 | N/A | N/A | N/A |
| Sub-total | \$90,580.00 | \$86,080.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$2,031,970.00 | \$1,958,835.00 | N/A | \$20,301.29 | N/A |

Components

Information not provided.

Tower Equipment and Rigging Costs

Cost Information

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

| Description Primary Tower TOWER | Predetermined Cost Estimate \$531,500.00 | Estimated Cost \$505,000.00 | Estimated Cost Justification | Actual Cost \$1,991.40 | Actual Cost Justification |
|---|--|-----------------------------------|------------------------------------|------------------------------|---------------------------------|
| Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study | \$26,300.00 | \$25,000.00 | N/A | \$1,991.40 | Tower Structural Analysis |
| Short Tower (less than 500') | \$84,200.00 | \$80,000.00 | N/A | N/A | N/A |
| Major tower reinforcement /modifications | \$421,000.00 | \$400,000.00 | N/A | N/A | N/A |
| Sub-total | \$531,500.00 | \$505,000.00 | N/A | \$1,991.40 | N/A |
| Total for all systems | \$2,031,970.00 | \$1,958,835.00 | N/A | \$20,301.29 | N/A |

Components

| Actual Information | |
|--------------------|-----------|
| Description | File Name |

| Component Description: | Legal services related to Tower Structural Analysis. Please refer to attachment "Sheehan Tower 2 (rev)". \$136.50 |
|---------------------------|---|
| Amount: | \$150.50 |
| Component Description: | Structural Analysis for proposed antenna loading |
| Amount: | \$1,500.00 |
| Component Description: | Legal services related to Tower Structural Analysis. Please refer to attachment "Sheehan Tower |
| Amount: | (rev)". \$354.90 |
| Information not provided. | |
| Information not provided. | |
| | Amount: Component Description: Amount: Component Description: Amount: Information not provided. |

Outside Professional Services

Cost Information

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 | \$169,100.00 | \$162,780.00 | | \$9,706.00 | |
| Project management of the transition | \$6,320.00 | \$6,160.00 | N/A | \$475.00 | N/A |
| Other Engineering Services | \$20,870.00 | \$20,870.00 | N/A | \$530.00 | N/A |
| Other Legal Services | \$15,000.00 | \$15,000.00 | N/A | N/A | N/A |
| Additional Field Engineering Service, 6 Days | \$12,000.00 | \$12,000.00 | N/A | N/A | 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 |
| Prepare request for Special Temporary Authorization | \$2,050.00 | \$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 |
|---|------------|------------|-----|------------|--|
| Prepare engineering section of FCC Form 2100 (main), Construction Permit Application | \$3,155.00 | \$3,000.00 | N/A | \$2,000.00 | FCC CI applicati |
| Perform engineering study for new channel assignment and antenna development | \$7,360.00 | \$7,000.00 | N/A | \$3,250.00 | N/A |
| Address transition timing and coordination issues w/ other stations and wireless | \$2,630.00 | \$2,500.00 | N/A | \$3,361.00 | Prep Origina Form 39 Include addition consultati regardin reimbursa items. |
| Prepare and or review reimbursement form | \$2,630.00 | \$2,500.00 | N/A | N/A | N/A |
| Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application | \$2,365.00 | \$2,250.00 | N/A | N/A | N/A |

| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application | \$5,260.00 | \$5,000.00 | N/A | \$90.00 | N/A |
|--|----------------|----------------|-----|-------------|-----|
| Sub-total | \$169,100.00 | \$162,780.00 | N/A | \$9,706.00 | N/A |
| Total for all systems | \$2,031,970.00 | \$1,958,835.00 | N/A | \$20,301.29 | N/A |

Components

| Actual Information Description | File Name | |
|--------------------------------------|-----------------------------------|---|
| Project management of the transition | Component Description: Amount: | One half the cost of checks for the reimbursement bank account, shared between repack stations WEKW and WLED \$25.00 |
| | Component Description: Amount: | Prep and submit Form 387 3Q18 \$150.00 |
| | Component Description: Amount: | Prepare and submit Sched 387 \$225.00 |
| | Component Description: | Preliminary design of RF transmission facilities for |
| | Amount: | planning \$315.00 |

| | Component Description: Amount: | Prepare and submit Sched 399 actual charges \$375.00 |
|--|-----------------------------------|---|
| | Component Description: Amount: | Proj Mgmt for 3Q2017 Prog Rept \$300.00 |
| | Component Description: Amount: | Prepare and submit Sched 387 \$225.00 |
| | Component Description: Amount: | Proj Mgmt 399 Actual Cost invoices \$300.00 |
| Other Engineering Services | Component Description: Amount: | Prep and submit actual cost invoice \$530.00 |
| Other Legal Services | Information not provided. | |
| Additional Field Engineering Service, 6 Days | Information not provided. | |
| Comprehensive coverage verification via field study, if needed | Information not provided. | |
| Attorney Fees - Prepare and File request for Special Temporary Authorization | Information not provided. | |
| | Information not provided. | |

| Prepare engineering section of FCC Form 2100 (main), License to Cover Application | Information not provided. | |
|---|-----------------------------------|--|
| Prepare engineering section of FCC Form 2100 (main), Construction Permit Application | Component Description: Amount: | FCC CP application for main facility \$2,000.00 |
| Perform engineering study for new channel assignment and antenna development | Component Description: Amount: | Engineering study for new channel assignment and antenna development \$3,250.00 |
| | Amount. | ψ3,230.00 |
| Address transition timing and coordination issues w/ other stations and wireless | Component Description: | Additional consultation regarding reimbursable items |
| | Amount: | \$861.00 |
| | Component Description: | Prep of original Form 399 for reimbursement |
| | Amount: | \$2,500.00 |
| Prepare and or review reimbursement form | Information not provided. | |
| Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application | Information not provided. | |

| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application | Component Description: | Legal services related to the 2100 Main CP application for WEKW |
|---|------------------------|---|
| | Amount: | \$90.00 |
| | Component Description: | 4 items on invoice for various Legal services related to |
| | Amount: | Repack for WEKW. \$119.25 |
| | Component Description: | Legal services related to Quarterly report for WEKW |
| | Amount: | \$30.00 |

Other Expenses

Cost Information

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 | \$83,550.00 | \$83,000.00 | | \$0.00 | |
| MVPD Notification of Channel Change | \$2,000.00 | \$2,000.00 | N/A | N/A | N/A |
| Develop and air announcement of upcoming channel change | \$0.00 | \$0.00 | N/A | N/A | N/A |
| Equipment Delivery and Handling Charges | \$60,000.00 | \$60,000.00 | N/A | N/A | N/A |
| Disposal Costs (for equipment and other waste, net of any salvage value) | \$10,000.00 | \$10,000.00 | N/A | N/A | N/A |
| DTV Medical Facility Notification | \$11,550.00 | \$11,000.00 | N/A | N/A | N/A |
| Sub-total | \$83,550.00 | \$83,000.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$2,031,970.00 | \$1,958,835.00 | N/A | \$20,301.29 | N/A |

Components

Information not provided.

| Cost Information | Grand Total | | | | |
|---------------------|-----------------------|--------------------------------|----------------|-------------|--|
| | | Predetermined Cost Estimate | Estimated Cost | Actual Cost | |
| | Total for all systems | \$2,031,970.00 | \$1,958,835.00 | \$20,301.29 | |

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

- 4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
- 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. | Robert Gehman Consulting Engineer |
| | 02/27/2019 |

Attachments