| APPLICANT'S NAME | | | | |
|---|---|---|---|---|
| **BUDGET INFORMATION - Construction Programs** | | | | |
| *NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.* | | | | |
| **COST CLASSIFICATION** | **a. Total Cost** | **b. Matching Funds (Cash)** | **c. Matching Funds (In-Kind)** | **d. Federal Funding Request (Columns a-b-c)** |
| 1. Administrative and legal expenses | $466,558 | $89,800 | $17,558 | **$359,200** |
| 2 . Land, structures, rights-of-way, appraisals, etc. | $546,000 | $109,200 | $0 | **$436,800** |
| 3. Relocation expenses and payments | $0 | $0 | $0 | **$0** |
| 4. Architectural and engineering fees | $412,000 | $82,400 | $0 | **$329,600** |
| 5. Other architectural and engineering fees | $0 | $0 | $0 | **$0** |
| 6. Project inspection fees | $0 | $0 | $0 | **$0** |
| 7. Site work | $260,000 | $52,000 | $0 | **$208,000** |
| 8. Demolition and removal | $0 | $0 | $0 | **$0** |
| 9. Construction | $0 | $0 | $0 | **$0** |
| 10. Equipment | $21,672,623 | $3,542,287 | $493,888 | **$17,636,448** |
| 11. Miscellaneous | $601,516 | $3,400 | $584,516 | **$13,600** |
| 12. SUBTOTAL (add #1 through #11) | $23,958,697 | $3,879,087 | $1,095,962 | **$18,983,648** |
| 13. Contingencies | $0 | $0 | $0 | **$0** |
| 14. SUBTOTAL (add #12 and #13) | $23,958,697 | $3,879,087 | $1,095,962 | **$18,983,648** |
| 15. Project (program) income | | $0 | $0 | **$0** |
| **16. TOTAL PROJECT COSTS (*subtract #15 from #14)*** | **$23,958,697** | **$3,879,087** | **$1,095,962** | **$18,983,648** |
| FEDERAL FUNDING | | | | |
| 17. Federal assistance requested, calculated as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share. | Enter eligible costs from line 16a Multiply X 20% | | | $4,791,739 |

# DETAIL OF PROJECT COSTS

PLEASE COMPLETE THE TABLE BELOW FOR THE DIFFERENT CATEGORIES OF EQUIPMENT THAT WILL BE REQUIRED FOR COMPLETING THE PROJECT. EACH CATEGORY SHOULD BE BROKEN DOWN TO THE APPROPRIATE LEVEL FOR IDENTIFYING UNIT COST

| SERVICE AREA or COMMON NETWORK FACILITES: | | Eligibility (Yes/No) | Unit Cost | No. of Units | Total Cost | Support of Reasonableness |
|---|---|---|---|---|---|---|
| **NETWORK & ACCESS EQUIPMENT** | | | | | **$4,148,890** | |
| **Switching** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Routing** | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | Quotes Received - Q01 |
| | | | | | 0 | |
| | | | | | 0 | |
| **Transport** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q02 |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q03 |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q04 |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q05 |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | See Detail Excel Spreadsheet - In Kind Match.xlsx |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | See Detail Excel Spreadsheet - In Kind Match.xlsx |
| **Access** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q06a, Q06b, Q06c, Q06d |
| | | | | | 0 | |
| | | | | | 0 | |
| **Other** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q07 |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q08 |
| | | | | | 0 | |
| **OUTSIDE PLANT** | | | | | **$584,516** | |
| **Cables** | In-Kind Outside Plant (F ber) | Yes | [redacted] | [redacted] | [redacted] | See Detail Excel Spreadsheet - In Kind Match.xlsx |
| | | | | | 0 | |
| | | | | | 0 | |
| **Conduits** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Ducts** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Poles** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Towers** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Repeaters** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Other** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |

| SERVICE AREA or COMMON NETWORK FACILITES: | | Eligibility (Yes/No) | Unit Cost | No. of Units | Total Cost | Support of Reasonableness |
|---|---|---|---|---|---|---|
| **BUILDINGS** | | | | | **$806,000** | |
| **New Construction** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Pre-Fab Huts** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q09 |
| | | | | | 0 | |
| | | | | | 0 | |
| **Improvements & Renovation** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Other** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q10 |
| | | | | | 0 | |
| | | | | | 0 | |
| **CUSTOMER PREMISE EQUIPMENT** | | | | | **$17,523,733** | |
| **Modems** | [redacted] | Yes | [redacted] | | [redacted] | Quotes Received - Q11 |
| | | | | | 0 | |
| | | | | | 0 | |
| **Set Top Boxes** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Inside Writing** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Other** | [redacted] | Yes | [redacted] | | [redacted] | Quotes Received - Q12 |
| | [redacted] | Yes | [redacted] | | [redacted] | Quotes Received - Q13 |
| | | | | | 0 | |
| **BILLING SUPPORT AND OPERATIONS SUPPORT SYSTEMS** | | | | | **$167,558** | |
| **Billing Support Systems** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q14 |
| | | | | | 0 | |
| | | | | | 0 | |
| **Customer Care Systems** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q14 |
| | | | | | 0 | |
| | | | | | 0 | |
| **Other Support** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q15 |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | See Detail Excel Spreadsheet - In Kind Match.xlsx |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | See Detail Excel Spreadsheet - In Kind Match.xlsx |

| SERVICE AREA or COMMON NETWORK FACILITES: | | Eligibility (Yes/No) | Unit Cost | No. of Units | Total Cost | Support of Reasonableness |
|---|---|---|---|---|---|---|
| **OPERATING EQUIPMENT** | | | | | **$0** | |
| **Vehicles** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Office Equipment / Furniture** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Other** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **PROFESSIONAL SERVICES** | | | | | **$711,000** | |
| **Engineering Design** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q16 |
| | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q17 |
| | | | | | 0 | |
| **Project Management** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Consulting** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q18 |
| | | | | | 0 | |
| | | | | | 0 | |
| **Other** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Quotes Received - Q19 |
| | | | | | 0 | |
| | | | | | 0 | |
| **TESTING** | | | | | **$0** | |
| **Network Elements** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **IT System Elements** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **User Devices** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Test Generators** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Lab Furnishings** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Servers / Computers** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |

| SERVICE AREA or COMMON NETWORK FACILITES: | | Eligibility (Yes/No) | Unit Cost | No. of Units | Total Cost | Support of Reasonableness |
|---|---|---|---|---|---|---|
| **OTHER UPFRONT COSTS** | | | | | **$17,000** | |
| **Site Preparation** | | | | | 0 | |
| | | | | | 0 | |
| | | | | | 0 | |
| **Other** | [redacted] | Yes | [redacted] | [redacted] | [redacted] | Accounting & Engineering Invoices |
| | | | | | 0 | |
| | | | | | 0 | |
| **PROJECT TOTAL: $23,958,697** | | | | | | |

# • Budget Narrative

- **Applicant Name: Buggs Island Telephone Cooperative**
- **EasyGrants Number: 1946**
- **Organization Type: Cooperative (Corporation)**
- **Proposed Period of Performance: 5 years**
- **Total Project Costs: $23,958,697**
- **Total Federal Grant Request: $18,983,648**
- **Total Matching Funds (Cash): $3,879,087**
- **Total Matching Funds (In-Kind): $1,095,962**
- **Total Matching Funds (Cash + In-Kind): $4,975,049**
- **Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 20.77%**

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- **1. Administrative and legal expenses - $466,558**
- **Administrative and legal expenses for this project are comprised of the following components:**
  - [redacted] **will be used to support the billing and customer care software packages necessary to operate the business. These systems will further be used for automated provisioning of services as well as our providing a web-based portal for customers to access their information. The billing and customer support systems are capable of providing a complete suite of services that range from billing provisioning, order management and customer relationship management. The total cost for the two blade power edge servers is [redacted]. A quote was obtained from [redacted] for this equipment.**

- **The breakout of funding is below:**
  - **BTOP Grant -** [redacted]
  - **BIT Cash Match -** [redacted]

- [redacted] **equipment is also in this category and includes an existing** [redacted] **that will be used partially for network monitoring and traffic reporting. The total in-kind contribution is** [redacted]**. The original cost of the** [redacted] **was** [redacted]**, and it has been depreciated for 4 months at an annual rate of 14.29%. The total net value is** [redacted] **of this was allocated to this project. The** [redacted] **was derrived from the assumption that** [redacted] **of the** [redacted]**s system resources would be used for traffic monitoring based on the current level of available resources in the** [redacted] **and the amount of traffic projected for this project. For a detailed calculation of this in-kind contribution please see the excel document titled In Kind Match.xlsx.**
  - **BIT In-Kind Match –** [redacted]

- **In-Kind Network Administration Equipment includes approximately** [redacted] **of the net book value of the** [redacted] **servers that will be allocated to this project. These are the primary management servers that control the wireless network and control voice quality on the network and were purchased as a part of our existing** [redacted] **Wireless site. They will be used to provision and maintain all of the new cell sites that are constructed. The total in-kind contribution is** [redacted] **The original value of these servers was** [redacted]**, none of which has been depreciated as this was purchased for our current** [redacted] **Wireless site. Of the total book value** [redacted] **has been allocated to this project because** [redacted] **of the overall system resources will be devoted to the** [redacted] **cell towers. For a detailed calculation of this in-kind contribution please see the excel document titled In Kind Match.xlsx.**
  - **BIT In-Kind Match -** [redacted]

- **Network management and monitoring support encompasses all of the tools and equipment necessary to provide monitoring of network traffic and bandwidth management. This is accomplished by using dual** [redacted] **to provide quality of service, service provisioning, and network monitoring tools. The total cost for this component is** [redacted] **A quote from** [redacted] **Inc. was obtained for these services.**

  **The breakout of funding is below:**

- **BTOP Grant - [redacted]**
- **BIT Match - [redacted]**

- **Tower acquisition services will be provided by a third party. BIT will use this third party to negotiate operational tower leases with tower owners, complete all of the necessary paperwork, permits, obtain any necessary zoning approval, structural analysis, and any other tasks needed to make the site ready for construction. The total for tower acquisition services is [redacted], which is based on a quote received from [redacted].**

  **The breakout of funding is below:**

  - **BTOP Grant - [redacted]**
  - **BIT Match - [redacted]**

- **2. <u>Land, structure, rights-of-way, appraisals, etc. - $546,000</u>**

- **For this project there are [redacted] cell sites that will require a prestressed 10x12 concrete building to house the wireless infrastructure components, such as the base station, batteries, and switches necessary for that cell site's operation. The total estimated cost for these prestressed buildings is [redacted] per building, or a total of [redacted] for all [redacted] cell sites.**

  - **The breakout of funding is below:**

    - **BTOP Grant - [redacted]**
    - **BIT Match - [redacted]**

- **3. <u>Relocation expenses and payment - $0</u>**

  - **There are no relocation expenses related to this project.**

- **4. <u>Architectural and engineering fees - $412,000</u>**

- **The Architectural and engineering fees are broken down as follows:**

  - **Engineering and installation consists of the engineering fees related to the IP configuration, base station design, scope of work development, and creating installation diagrams for each of the [redacted] cell sites. This is a fixed cost per site and does not incurr an hourly rate. The total cost for these services is [redacted], which is based on a quote received from [redacted].**

    - **The breakout of funding is below:**

- **BTOP Grant -** [redacted]
- **BIT Match -** [redacted]

- **Cell site engineering is also included in this category. It is comprised of RF design, backhaul design, installation, and management as well as ground field analysis, and the installation of any microwave backhaul components. This is a fixed cost and will not incurr any hourly rates. The total cost of cell site engineering is** [redacted]**, or** [redacted] **per site. This figure is based on a quote received from** [redacted]

  - **The breakout of funding is below:**
    - **BTOP Grant -** [redacted]
    - **BIT Match -** [redacted]

- **Site survey is comprised of a group of individuals who visit each cell site and perform spectrum analysis, and check the site for any conditions that would require additional consideration during construction. One of the primary responsibilities of this group is to take measurements and perform initial ground work before construction can start. The cost for these services is** [redacted] **per site, or a total of** [redacted]**.**

  - **The breakout of funding is below:**
    - **BTOP Grant -** [redacted]
    - **BIT Match -** [redacted]

- **5. <u>Other architectural and engineering fees - $0</u>**
- **There are no other architectural and engineering fees associated with this project.**
- **6. <u>Project inspection fees - $0</u>**
- **Due to the services being provided by BIT, there are no project budget related expenses in this category.**
- **7. <u>Site work - $260,000</u>**
- **Site preparation for each cell site includes pouring the concrete pad, setting the prestressed 10x12 concrete building, installing electrical service, and connecting to the tower's existing ground field. This also includes site clean-up, and the removal of any debris as a result of construction. The**

**total cost of site preparation is [redacted] per cell site, which is a total project cost of [redacted].**

- **The breakout of funding is below:**
  - **BTOP Grant - [redacted]**
  - **BIT Match - [redacted]**

- **8. <u>Demolition and removal - $0</u>**
- **There are no demolition and removal costs associated with this project.**
- **9. <u>Construction - $0</u>**
- **There are no construction costs associated with this project.**
- **10. <u>Equipment - $21,672,623</u>**
  - **<u>Chart below details BTOP Grant and BIT Cash Match</u>**

| Description | No. of Units | Unit Cost | Purchase/Lease | Total Cost | Additional Information | Support of Reasonableness |
|---|---|---|---|---|---|---|
| [redacted] | [redacted] | [redacted] | Purchased | [redacted] | Includes [redacted] for processing and routing internet traffic to and from the wireless network. This provides redundant routing capabilities in the core network. | Quote received from [redacted] |
| [redacted] | [redacted] | [redacted] | Purchased | [redacted] | Includes a [redacted] powered transport network designed to transport all of the aggregated network traffic from all [redacted] sites. There will be [redacted] different central offices where this equipment will be housed. This provides a protected path for network traffic to ingress and egress the core network. | Quote received from [redacted] |

| | | | | | | |
|---|---|---|---|---|---|---|
| [redacted] | [redacted] | [redacted] | Purchased | [redacted] | Includes [redacted] for aggregating devices in the core network. This is used to connect firewalls, servers, and computers to the [redacted] transport network at each of the [redacted] central offices. | Quote received from [redacted] |
| [redacted] | [redacted] | [redacted] | Purchased | [redacted] | Includes [redacted] radio links that connect towers that are not within range of fiber based transport. These radios are manufactured by [redacted], and use licensed [redacted] to connect the site to another site that contains fiber based transport. | Quote received from [redacted] |
| [redacted] | [redacted] | [redacted] | Purchased | [redacted] | Includes the sectors that mount to the tower, the associated cables that connect the sector to the base station inside the prestressed concrete building, the polyphasers for lightening protection, ground bars for grounding, GPS synchronization for base station transmit and receiving, rectifiers to power the batteries, batteries to power the base station, the base station that performs the actual sending and receiving of the data as well as transmits on the correct frequencies and ensures quality of service for that particular cell site. This also includes all relevant licenses, and installation of | Quote received from [redacted] |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | base station, sectors, cables, polyphasers, batteries, rectifiers, and racks. | |
| [redacted] | [redacted] | [redacted] | Purchased | [redacted] | Consists of a [redacted] for both copper and fiber connections. This is used to terminate the fiber or microwave backhaul and connects the base station to the backhaul component of the network. | Quote received from [redacted] |
| [redacted] | [redacted] | [redacted] | Purchased | [redacted] | Consists of a [redacted] that will be used to power all of the AC powered components in the Beechwood Central Office in the core network. Primarily will be used to power the Dell Blade Servers. | Quote received from [redacted] |
| Generators | [redacted] | [redacted] | Purchased | [redacted] | Includes the installation of a 16 KW generac generator and transfer switch at each of the [redacted] site locations. This is to provide [redacted] hours of continuous power in the event of a power failure. The generators use propane gas as their primary fuel source. | Quote received from [redacted] |
| Modem | [redacted] | [redacted] | Purchased | [redacted] | Includes a [redacted] provide customers with the ability to connect more than one of their computers inside their home and to subscribe to phone service. | Quote received from [redacted] |

| | | | | | | |
|---|---|---|---|---|---|---|
| Antenna | [redacted] | [redacted] | Purchased | [redacted] | Includes the [redacted] that is required to send and receive data wirelessly from the base station [redacted] The subscriber data adaptor is then connected to the modem to provide service to the customer. | Quote received from [redacted]. |
| [redacted] | [redacted] | [redacted] | Purchased | [redacted] | [redacted] | Quote received from [redacted] |
| BIT In-Kind Existing Circuit Equipment | 1 | [redacted] | Previously Purchased | [redacted] | [redacted] | For detail see In Kind Match.xlsx |

- **The breakout of funding is below:**
  - **BTOP Grant - [redacted] (of total cost above)**
  - **BIT Cash Match - [redacted] of total cost above)**
  - **BIT In-Kind Match - [redacted] (of total cost above)**

- **11. <u>Miscellaneous - $601,516</u>**

- **BIT incurred preapplication expenses for the completion of the stimulus application after the NOFA was issued. These expenese relate to the clutter data, maps, engineering approval, and consulting fees for completing the pro forma financial statements.**

- **BTOP Grant -** [redacted]
- **BIT Match -** [redacted]0

- **Included in this category is also BIT in-kind fiber contributions. This fiber is a part of BIT's core transport ring for transporting internet traffic to and from our host central offices. It will be used in this project for aggregating and processing all of the network traffic from the** [redacted] **sites and routing it to the internet.** [redacted] **percent** [redacted] **of the net book value of the fiber was allocated to this project. Since this fiber will be used to carry the traffic for the** [redacted] **and one of the internet circuits, the majority of the traffic that will be transported on BIT's buried fiber facilities** [redacted] **to this project. The purchased value of BIT's fiber network is** [redacted] **the accumulated depreciation is** [redacted]**. The net book value of this asset is** [redacted]**. For a detailed calculation of this in-kind contribution please see the excel document titled In Kind Match.xlsx.**
  - **BIT In-Kind Match -** [redacted]

- **13. Contingencies - $0**
- **There are no contingencies as a part of this project budget.**
- **15. Project (program) income - $0**