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| **2023 BIG Idea Challenge Budget Instructions**   1. Budgets must be provided in table format, using the provided [Budget Template](https://bigidea.nianet.org/wp-content/uploads/2023-BIG-Idea-Budget-Template.xlsx), and must also include a Budget Justification explaining the proposed expenses, as described in the section below. 2. Due to the nature of the funding sources for the BIG Idea Challenge, which comes from two different funding sources and contracting mechanisms within NASA, *the budget must be displayed as two separate phases, clearly distinguishing between Phase 1 and Phase 2 costs.*    1. The Phase 1 budget must come very close to 46% of the total funding requested (within a percentage or two), and cover costs from February 2023 – June 2023.       1. Phase 1 funds will be sent from NIA directly to the primary BIG Idea Challenge university, therefore, any IDCs in Phase 1 should be from the primary proposing university.    2. The Phase 2 budget must come very close to 54% of the total funding requested (within a percentage or two), and cover costs from July 2023 to December 2023.       1. Phase 2 funds will be added as an addendum to the base award between NASA and your state’s Space Grant Consortium, and then sent to your university via the internal mechanisms in place between your State Space Grant Consortium and your university. Therefore, the Phase 2 budget should also include any IDCs associated with the lead institution’s creation of the subaward to fund the selected BIG Idea proposing team This means BOTH relevant University and Space Grant IDCs should be included in Phase 2.          1. The proposing institution must collaborate with the Space Grant Consortium in the creation of the Phase 2 budget. 3. Budgets must include travel to the onsite Forum, currently scheduled to take place in Cleveland, OH (NASA’s Glenn Research Center)    1. Teams should assume:       1. a four-night hotel stay       2. a registration fee of $550 per person |

**2023 BUDGET JUSTIFICATION TEMPLATE**

1. Justify/explain each budget line item **in the order it appears in the** [**BIG Idea formatted budget** **template**](https://bigidea.nianet.org/wp-content/uploads/2023-BIG-Idea-Budget-Template.xlsx) using this document as a guide.
   1. Please check to ensure that all formulas are correct on the budget template, especially when making changes/additions to the existing document.
2. Include specific dollar amounts for materials when known.
3. **DIRECT LABOR**

Describe all personnel costs as indicated below.

Example – Key Personnel:

Salaries for all named personnel are based upon current university academic and staff salary scales. All personnel budget calculations include salary range adjustments and merit increases as applicable for each year of support in accordance with University policy.

Salary for X (summer or calendar year)month(s) at XXX% effort is requested for the Principal Investigator in each phase of the project and is calculated based on the institutional base salary policy. XX will be responsible for the overall coordination of the project and the supervision of the graduate students and other project personnel. *Change and/or insert description of faculty role/function as needed.*

Provide similar information for all other Key Personnel listed on the budget.

Example – Other Personnel:

5 graduate students are expected to work on the project at a rate of XXX each. XX is requested for 3 calendar months each for Phase 1 and 5 calendar months each for Phase II to support the BIG Idea competition. *Insert description of grad students here.*

X number of undergraduate students will work X number of hours for X number of weeks at the rate of $XXX per hour. *Insert description of Undergraduate role/ function here.*

Provide similar information for all other personnel listed on the budget. Stipends for student work/research should be included in this section.

1. **FRINGE BENEFITS**

List actual fringe rates for each relevant category (i.e., regular faculty, full time professional & research personnel, graduate research assistants, undergraduates, and hourly employees).

Example:

The fringe rate is 30% for faculty and 4% for all students. These are actual fringe rates charged to projects effective January 1, 2022.

1. **EQUIPMENT**

Equipment is defined as any single item in excess of $5,000. List all capital equipment to be purchased or fabricated for use on the project. Specify how item will be used to support the proposed research activity and include in which phase it will be purchased.

Example:

$7,500 is required in Phase I for a XX to achieve chamber pressure of ~XX when testing XX. $8,000 is required in Phase II for a XX sensor, which will provide XX data.

1. **DOMESTIC TRAVEL**

Include travel expenses for the 2023 Forum and any travel required for testing. **Note that proposals must include travel to Forum, currenting scheduled to take place in Cleveland, OH (NASA’s Glenn Research Center). Assume four-night hotel stay and a registration fee of $550 per attendee.**

Example:

Travel funds are requested for 10 individuals: Faculty advisors and students to attend the 2023 BIG Idea Forum. The cost of travel is calculated for 5 days 4 nights and includes Forum registration ($550 each), airfare, lodging, per diem, and ground transportation. The cost of airfare and ground transportation is based on estimated costs and lodging and per diem costs are based on rates as established by the GSA.

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| --- | --- | --- | --- |
| **Cost category** | **Rate** | **# of People** | **Total** |
| Registration | $550/person | 10 | $ 5,500 |
| Airfare | $350/person | 10 | $ 3,500 |
| Lodging (4 nights) | $155/night x 4 nights | 10 | $ 6,200 |
| Meals & incidental expenses (4.5 days) | $69/day x 4.5 days | 10 | $ 3,105 |
| Ground transportation | $40/person | 10 | $ 400 |
|  | | **Total** | **$18,705** |

1. **OTHER DIRECT COSTS**

For each of the other direct costs items below that are in your budget, briefly detail what the items are to be purchased and applicability to proposed project. Make sure you report the items in the same categories as they appear in your prepared budget.

**Materials and Supplies:** (i.e., consumables, lab supplies, chemicals, etc.)

This information should be presented in a table, with specific/estimated costs provided by Phase. Include unit prices and quantities for each supply category, when known.

Example:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Cost per item** | **# of items** | **Phase I** | **Phase II** | **Total** |
| Three Neck FB Flasks (100 mL) | $45.00 | 7 | $315 | $0 | **$ 315** |
| Form 3 3D Printer | $3,500 | 1 | $3,500 | $0 | **$ 3,500** |
| Digital Hotplate | $342.50 | 2 | $ 685 | $0 | **$ 685** |
| 12 lbs. of JSC-1A simulant | $3,000 | 1 | $0 | $3,000 | **$ 3,000** |
| Piping for Vacuum Chamber | $500 | 3 | $0 | $1,500 | **$ 1,500** |
|  | | **Total** | **$4,500** | **$4,500** | **$9,000** |

**Testing Costs or Facilities Rental**

**Consultants:**

Describe anticipated services to be provided by the consultant(s). Describe the basis of the cost estimate by Phase (i.e., $X/ hour, X hours, travel costs, and total estimated costs).

**Services:** (i.e., paying a third party to run data analysis)

Detail basis of cost estimate and applicability to proposed project, by Phase.

**Subcontracts/Subawards:**

List all subawards (including sub contracts to any partnering universities) and provide a short description of the work to be performed. A detailed subaward cost breakdown by Phase should be included here in the budget justification only.

**Miscellaneous:** For items that do not fall within the specified Other Direct Cost categories above, itemize in this section and include the basis of the cost estimate, by Phase.

1. **TOTAL DIRECT COSTS (A+B+C+D+E+F)**
2. **INDIRECT COSTS**
3. **University Indirect Costs (Phase 1 and Phase 2)**
   1. List IDC rate, Cognizant Federal Agency, and contact information
      1. **Space Grant Indirect Costs (Phase 2)**

Example:

**$30,712:** ($22,585 in Phase I and $8,127.00 in Phase II).

For Phase I, these are calculated at 50% on a Modified Total Direct Cost bases (excluding equipment over $5,000/item; and up to the first $25,000 of each subcontract). These charges are consistent with XXX’s current federally negotiated indirect cost rate with XXX Agency, effective XXX date.

For Phase II, these are calculated at 10% on Total Direct Costs, which is the limit for the XXX Space Grant Consortium. XXX Space Grant IDCs in Phase 2 are an additional 5% to manage the Phase 2 funds.