OFFICE OF SUSTAINABILITY
CAMPUS SUSTAINABILITY FUND

Strengthening Sustainability Data Infrastructure

Grant Type
Annual Grant

Application Type
Final Application

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Project Manager 1 Status
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Finance Strategy & Solutions

Requested Funding Amount

Only enter this number after completing the budget sheet (the budget template will round up your request).
Mini Grants may request $250 up to $5,000.
Annual Grants may request $5,001 up to $100,000, and up to three years of funding.

Year 1:
$74400

Year 2:
$97000

Year 3:
$99900

Project Name
Strengthening Sustainability Data Infrastructure

Primary Project Category
Built Environment

Secondary Project Category
Campus Life (Health & Wellbeing, Behavior Change

Background and Context

Please provide relevant background about your organization/team including your mission and/or expertise. Lay out the rationale for the proposed project, focusing on the issue that your project would address. You may also share how the project is new or how it complements, builds upon, or scales existing initiatives. This section is meant to give us more information about you and the context for the project, while the questions below provide space to go into detail about your proposal's plan and specifics.

Response:

The Office of Sustainability drives institutional sustainability and climate action through

collaborative, student-focused initiatives that prioritize environmental stewardship, social equity, and economic resilience. Our programs include the Sustainability & Climate Action Plan, Campus Sustainability Fund, Compost Cats, Students for Sustainability, and the Community Garden, alongside various smaller projects. As of February 2025, our team comprises 9 full-time staff, 24 student employees, and 3 staff/faculty advisors.

Our flagship initiative, the Sustainability & Climate Action Plan, scheduled for publication in Spring 2025, pending leadership approval, outlines 10 ambitious commitments to guide the university toward a more sustainable future. These commitments include reducing potable water use by 35%, achieving 85% sustainability literacy among the campus community, and reaching climate neutrality by 2040. While these goals are achievable, their success depends on concerted institutional prioritization and community collaboration.

To shape these commitments, we drew on input from interdisciplinary working groups and two extensive surveys, which together captured 784 responses (512 from students). Across all respondent groups, the most pressing priorities were water use and conservation, renewable energy adoption, waste reduction, decarbonization, and energy efficiency. These findings directly informed our plan's focus areas, ensuring alignment with campus-wide sustainability concerns.

Unfortunately, you can't manage what you don't measure. Despite this progress, critical gaps remain. Of the 10 commitments, four lack baseline data, while others are incomplete (see supporting documents). Addressing these gaps is essential, as effective management hinges on accurate measurement. Through this proposal, we seek to enhance the Office of Sustainability's capacity to collect, analyze, and share sustainability metrics. Funding would enable us to establish a robust data infrastructure, including tools for warehousing and dashboarding key metrics. By building this foundation, we aim to advance data-driven decision-making and accountability, ensuring meaningful progress toward our sustainability goals.

Project Description

Please provide a thorough description and explanation of your project. Be explicit in what your team is proposing. What will your project's outcomes be and how will you achieve them? Outcomes should be specific, measurable, achievable, realistic, and timely.

Response:

To address critical data gaps, we propose enhancing the Office of Sustainability's capacity to collect, analyze, manage, and share sustainability data. While University Analytics & Institutional Reporting (UAIR) handles most institutional reporting, sustainability data remains decentralized and inconsistently measured. Our office currently collects, verifies, and reports all related metrics, creating inefficiencies and limiting the university's ability to make data-informed decisions. Even UAIR relies on our team for reports such as the Princeton Review.

These gaps are particularly evident in our efforts to complete the Association for the Advancement of Sustainability in Higher Education (AASHE) Sustainability Tracking, Assessment, & Rating System

(STARS). Compiling the STARS report has taken two years, exposing data gaps that directly impact our rating.

For example, our reporting excludes outlying properties (OLP) such as Biosphere 2, the Honors Village, and Tumamoc Hill because they are not connected to the university's district utility systems. This omission leads to an undercount of operational impacts, limiting comprehensive assessments of emissions, water use, and other sustainability metrics across university-owned properties.

Limited capacity also prevents participation in other reporting frameworks like the Times Higher Education Impact Rankings. Similarly, we cannot independently verify data submitted by other departments, such as that shared with the Humane Society, which ranked the university 5th in the College & University Protein Sustainability Scorecard.

Without a coordinated data management strategy, we cannot effectively benchmark progress, track institutional goals, or identify opportunities for impactful action. To address these gaps, we propose hiring a full-time Data Analyst and two Student Data Specialists to develop a systematic approach to data management.

We will collaborate with UAIR and other departments to establish a centralized set of processes to improve sustainability data collection and management. This will enable dashboard development, providing transparency and enable tracking progress on initiatives. These efforts could also be extended to improve the Campus Sustainability Fund's ability to assess qualitative and quantitative project data, using these insights to demonstrate impacts and enhance future project development.

We will also purchase an institutional license for Carbon Hub, a program of EnergyCAP already utilized by University Facility Services to manage utility billing for campus and OLPs. Carbon Hub will simplify greenhouse gas data collection while offering insights into utility usage.

These efforts will resolve critical data challenges, ensure accurate external reporting, and support the university's Sustainability & Climate Action Plan. By building a robust data foundation, we will enable timely, data-driven decisions to advance institutional sustainability.

Timeline

Please provide a timeline breakdown for the key steps in your project. The timeline can be basic, but please include anticipated timeframes for each major step, including any key dates for when certain elements must start or be completed. The timeline can be in list format.

Response:

If funded, we will implement the following timeline to build capacity for sustainability data management and reporting. In July 2025, we will develop and post the job description for a Sustainability Data Analyst, aiming for an October 1, 2025, start date. Concurrently, we will plan and post the Student Data Specialist positions in Fall 2025, ensuring they start work in Spring 2026 after the Data Analyst has assessed key needs and priorities.

From October to December 2025, the Data Analyst will onboard and begin meeting with UAIR, University Facility Services, Enterprise GIS (eGIS), and Gordian, the consultant supporting greenhouse gas inventories, to gain access to systems and to evaluate existing data.

Beginning in January 2026, we will start conducting outreach to departments across the university, including Arizona International, the Office of the Registrar, Student Unions, Parking & Transportation Services, Arizona Athletics, and others to verify existing data sources, improve consistency, and identify opportunities for more efficient collection and analysis.

During this same period, Student Data Specialists will support specific data collection and analysis tasks under the guidance of the Data Analyst. Early priorities include streamlining labor-intensive data collection processes, such as identifying sustainability-focused and sustainability-inclusive courses. On this topic, we hope to explore developing an AI program to automatically review syllabi each semester, replacing the time-intensive manual review of thousands of syllabi, enabling faster, more accurate reporting while creating tools for students interested in sustainability courses.

Between FY2027 and FY2028, we will refine and improve data collection, analysis, and verification processes across all existing and new reporting frameworks. We will also develop enhanced dashboards to provide public transparency on sustainability progress and create detailed annual reports for senior administration to support informed decision-making. Meetings with UAIR and eGIS will continue, focusing on establishing a centralized set of processes around sustainability data management and streamlining tools like Carbon Hub for tracking greenhouse gas emissions.

Throughout this process, we will actively pursue permanent funding and potential program expansion during each annual budget cycle. There is a strong likelihood (over 50%) that the Office can secure ongoing funding for this position once the project concludes. Additionally, the integration of Carbon Hub into standard operations is highly probable (over 90%), ensuring long-term continuity beyond the project's timeline.

Together, these efforts will ensure the long-term success of sustainability data management while enabling further integration of sustainability practices across the university.

Budget Narrative

Use this section to provide supplemental justification for the items you are requesting on your budget sheet. Please break down your justifications into the budget categories: Personnel or operating budget. Do not list out each expense or repeat notes made in the budget template, but instead address why the line items are being requested and the purpose they will serve, providing elaboration when necessary.
If you are requesting funding for personnel, use this section to elaborate on the position you are creating and how the budget and timeline was established for it. If you plan to hire students, describe in what capacity. Describe relevant details thoroughly (wages, responsibilities, duration of job, extent of involvement, how you will solicit/ market these opportunities etc.).
Ensure the descriptions match the line items in the budget sheet.
If matching or supporting funds are secured for the project, identify the source and amount in this section, and detail the impact of the matching funds on your overall budget.

Response:

We will create a Sustainability Data Analyst position and two Student Data Specialist positions. The Sustainability Data Analyst will earn an annual salary of $55,000 to $60,000. We anticipate a start date of October 1, 2025, requiring nine months of funding in FY2026 (up to $45,000 plus associated employee-related expenses). For FY2027 and FY2028, we have budgeted the full annual salary and ERE for this position, including a 3.5% annual increase to account for the university's salary adjustment program.

We are requesting funding for an institutional license for Carbon Hub, a crucial platform for improving data management and emissions tracking. The annual cost ranges from $12,000-$16,000 per a verbal conversation with a Carbon Hub representative, depending on the number of data points used to track scope 1 and scope 2 emissions. To ensure full coverage, we have requested $15,000. Carbon Hub does not charge for scope 3 emissions data points. We plan to purchase the license once the Data Analyst is onboarded and prepared to implement the tool.

Consider walking through this self-guided walkthrough demo of Carbon Hub to get a better sense of everything it is capable of tracking: https://nam11.safelinks.protection.outlook.com/?url=http%3A%2F%2Fbit.ly%2F3QEBt37&data=05%7C02%7CSBLY-CSF-ServiceAccount%40arizona.edu%7C85c65842c8744ffe3ec508dd584f61bb%7C5ee35505eb8e4929937d645df5013288%7C1%7C0%7C638763820663148249%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C%7C&sdata=sM8X2uN1%2BUbU1FbgGzRwwzSb0RPsaC6F3hGPT4UKoyc%3D&reserved=0. Either enter your email or use Trevor's (tledbetter@arizona.edu). As can be seen in the demo, GHG-related dashboards can be easily created for free and shared widely, even embedded into websites.

Other schools using Carbon Hub include the University of Maryland, the State University System of New York (SUNY), Princeton University, and the University of New Mexico. Pima County also uses Carbon Hub for their internal operations.

The Student Data Specialists will support the Data Analyst by assisting with data collection, analysis, and process improvement. These positions will start in January 2026 and will be paid for by the Office of Sustainability.

This project will also require support from existing Office of Sustainability staff to provide data access, contextual insights, and guidance on challenges and known issues. Staff will facilitate connections, participate in discussions, and offer mentorship. CJ Agbannawag will serve as the Data Analyst's supervisor, significantly increasing his involvement. The combined staff contributions are expected to average 1–2 hours per person per week for approximately 45 weeks per year, equating to an estimated $10,000 in annual support.

Non-GHG-related dashboards, such as those for the Campus Sustainability Fund and tracking progress on the Sustainability Commitments in the Action Plan, will require a separate dashboarding tool, likely Tableau or Microsoft Power BI. The Office of Sustainability will cover these costs, which are expected to remain under $2,000.

These roles and resources will enable us to streamline data collection and reporting processes,

improve accuracy and transparency, and enhance sustainability decision-making across the university.

Project Feasibility and Logistics

The Campus Sustainability Fund will only fund projects that have completed the necessary work to ensure they can succeed, be completed in the grant's timeline, or have an accurate budget.
Please provide a description of the work that has been completed so far to make this project feasible. Please provide a description of the work that has been completed so far to make this project feasible. If relevant partners have been contacted/coordinated with, please identify them in your response.
For example, have you received consent or authorization to complete your project (such as from Housing and Residence Life, Facilities Management, Parking and Transportation, etc.)? If you are making modifications to campus, do you have written authorization or official quotes from Facilities Management to accurately identify the cost of labor and supplies?

Response:

To ensure the project's success within the grant's timeline and budget, we have already completed critical groundwork and established strong collaborative relationships, demonstrating the feasibility of this initiative and its alignment with institutional priorities.

We have engaged extensively with UAIR regarding our growing data needs. While they have helped us access some existing data, they confirmed that they do not collect many of the necessary data streams and currently lack the capacity to support new efforts. However, they have expressed a willingness to collaborate further if additional resources, such as personnel, are provided. This project directly addresses that gap.

In addition, we have collaborated with University Facility Services (UFS) to explore the integration of tools like EnergyCAP and their Carbon Hub program into this project. We attended a detailed demonstration of Carbon Hub, which allowed us to assess its capabilities and identify how it can support the university's carbon tracking goals.

Enterprise GIS (eGIS) has also been a key partner in supporting our existing data needs by warehousing and managing certain data streams for the university's Sustainability Map and played a critical role in the development of the Office of Sustainability's Campus Sustainability Tour. Their expertise in geospatial data collection and visualization will be instrumental in expanding the Office of Sustainability's ability to track and report spatially relevant sustainability metrics, such as water use, energy consumption, and emissions patterns.

We have also engaged with additional stakeholders, including the College of Agriculture, Life, & Environmental Sciences Cooperative Extension, Phoenix Bioscience Core, and the College of Applied Science & Technology, to explore carbon sources and sustainability metrics. These discussions have informed our understanding of data needs across and beyond our main campus and strengthened the collaborative foundation for this project.

We aim to hire the Sustainability Data Analyst by October 2025, followed by Student Data Specialists

in Spring 2026. The Data Analyst will collaborate with UAIR, UFS, eGIS, and other departments to centralize existing data, identify gaps, and streamline sustainability metric tracking. By June 2026, they will establish a centralized data management process, integrating key sustainability metrics and addressing baseline gaps for the Sustainability & Climate Action Plan. By December 2026, they will develop and share dashboards tailored to stakeholder needs, including greenhouse gas tracking, Action Plan Sustainability Commitments, campus water use, Campus Sustainability Fund project impacts, and more. By June 2027, they will refine reporting frameworks, expand data tracking to outlying properties, and implement verification protocols to improve accuracy in institutional sustainability reporting.

Environmental Sustainability Outcomes

Please provide a description of how you expect your project to advance environmental sustainability on campus. A definition of environmental sustainability is provided on our Guides and Tips page.

Response:

Proper data collection and analysis are essential for advancing environmental sustainability at the University of Arizona and achieving goals such as climate neutrality by 2040. This project addresses gaps in sustainability data management, enabling informed decision-making and strategic investments in initiatives that maximize emissions reduction and resource conservation.

One key focus is water usage. From 2018 to 2022, the university achieved a 16% reduction in potable water use. However, the drivers behind these reductions remain unclear due to insufficient analysis. By employing a full-time Sustainability Data Analyst and part-time Student Data Specialists, this project will leverage existing data from University Facilities Services to identify the sources of these improvements, highlight high-use areas, and evaluate the effectiveness of water-saving initiatives. The team will also calculate projected savings for proposed projects and track their actual performance. This data-driven approach will optimize resource allocation, enabling further reductions in water consumption.

The project also addresses gaps in tracking and analyzing greenhouse gas emissions, particularly flight-related emissions, which represent a significant portion of the university's scope 3 emissions. In FY2024, directly financed travel, including university-sponsored faculty, staff, and athletics, as well as study abroad-related travel, accounted for 55% of scope 3 emissions, equal to 31,805 metric tons of carbon dioxide or nearly 81 million miles driven by gasoline-powered vehicles. Current flight data is aggregated, limiting insights into departmental or program-specific trends. By enhancing data tracking and analysis, the university can identify patterns, implement targeted strategies to reduce emissions, and support initiatives such as promoting alternatives to air travel or optimizing travel policies. These improvements also provide the foundation for an equitable carbon offset program for university-sponsored travel.

Beyond emissions and water use, this project strengthens the university's capacity to track, analyze, and communicate broader sustainability metrics. Accessible, accurate data supports transparent storytelling to stakeholders, builds community trust, and demonstrates the environmental and

community benefits of sustainability initiatives. The dashboards and reports generated will not only measure progress but also inspire action by highlighting success stories and showcasing the positive impacts of university programs.

The long-term value of this position lies in establishing a foundation for data-driven sustainability decision-making at the University of Arizona, enabling precise tracking of environmental impact, optimizing resource allocation, and ensuring accountability in achieving goals like climate neutrality.

Social Sustainability Outcomes

Please provide a description of how you expect your project to advance social sustainability on campus. A definition of social sustainability is provided on our Guides and Tips page.

Response:

This project will advance social sustainability on campus by increasing transparency, accessibility, and trust in sustainability initiatives. As awareness of local and global sustainability challenges grows, stakeholders within and beyond the university increasingly demand clear and accessible sustainability reporting. The Sustainability Data Analyst and Student Data Specialists will help meet these demands by enhancing the findability, accessibility, interoperability, and reusability (FAIR principles) of the university's sustainability data—an essential step in advancing impactful environmental and social initiatives.

By making sustainability data discoverable, machine-readable, and actionable, this project aligns with principles of data clarity and traceability, ensuring greater transparency and accountability. It also addresses persistent barriers to accessing and interpreting sustainability data, such as non-standardized methodologies and inaccessible formats, which have hindered stakeholders' ability to make informed decisions and take meaningful action.

Beyond accessibility, this project will actively integrate sustainability data into campus engagement and education. All relevant dashboards will be public-facing and available to the university and broader communities, enabling students, faculty, and staff to explore key metrics on emissions, water use, and other environmental impacts. Recognizing the importance of effective science communication, Student Data Specialists will research and implement best practices to ensure dashboards are intuitive, readable, and actionable. Their efforts will translate technical insights into compelling narratives that drive awareness and inspire action across campus.

Additionally, the Office of Sustainability will collaborate with faculty to incorporate dashboards and datasets into coursework, research, and experiential learning opportunities, reinforcing data literacy and sustainability problem-solving skills. Previously, we provided university flight data to Dr. Paul Blowers for an undergraduate greenhouse gas accounting module, where students estimated emissions from real-world, unstructured data. This project will help restart and expand similar efforts, ensuring students gain hands-on experience analyzing sustainability data.

While the primary focus is environmental sustainability, this project will also strengthen the

university's ability to address interconnected environmental and social challenges, fostering a more inclusive, transparent, and engaged campus community.

Student Leadership & Involvement

Please provide a description of how your project will benefit students on campus regarding the creation of leadership opportunities or student engagement. What leadership opportunities exist within your proposal? If you plan to seek student involvement, include relevant details thoroughly and how you will solicit/ market these opportunities.

Response:

This project offers limited direct student leadership opportunities but creates significant indirect opportunities, including two dedicated Student Data Specialist roles that provide meaningful engagement and career readiness. These specialists will support the project by managing, analyzing, and disseminating sustainability data. Through their work, they will gain hands-on experience with data analysis, visualization, and project management—skills transferable to careers in sustainability, data science, and related fields.

In addition to technical responsibilities, the specialists will coordinate focus groups with student employees and staff to ensure dashboards are accessible, appropriately scoped, and useful to the broader campus community. This leadership opportunity will help them develop expertise in stakeholder engagement, communication, and user-focused design. They will also collaborate with UAIR, UFS, and eGIS to improve sustainability data collection, gaining firsthand experience in cross-departmental coordination and institutional decision-making. These experiences will strengthen their leadership skills, preparing them to navigate complex sustainability challenges in their careers.

Students across campus have consistently advocated for greater access to sustainability metrics like carbon emissions, energy use, and water use. This project addresses those demands by enabling the development of interactive dashboards through tools such as Carbon Hub. These dashboards will serve as an invaluable resource for students to analyze campus sustainability performance, identify opportunities for improvement, and develop innovative, data-driven solutions.

Dissemination of these dashboards will primarily be handled by Office of Sustainability staff, alongside the Central Communications and Outreach Teams. Staff regularly meet with university leadership and departments to provide sustainability updates, and these dashboards will serve as a key tool in those discussions. Additionally, events like Bin It to Win It and Less is More through Housing will engage 8,000–10,000 students annually, integrating dashboard insights into outreach efforts. The Central Outreach Team can enhance engagement by incorporating real-time dashboard displays at appropriate events, while the Central Communications Team can promote the dashboards through our and broader university channels, ensuring institutional visibility.

Beyond outreach, this project fosters interdisciplinary collaboration and expands opportunities for involvement. Student organizations like Students for Sustainability can use the dashboards to inform their initiatives, while students in architecture, engineering, and environmental science courses can integrate the data into coursework and research. These efforts will strengthen student engagement,

making sustainability data more relevant and actionable across disciplines.

Education, Outreach, and Behavior Change

What opportunities does this project provide for members of the campus/community to learn about sustainability? How will your project educate the campus community and/or incorporate outreach and behavior change, particularly those who are not currently engaged with sustainability or environmental work? Please provide a description of how you expect your project will communicate its impacts to the campus community.

Response:

This project offers transformative opportunities for the campus community to engage with sustainability through improved access to critical data and targeted outreach. By developing dashboards showcasing key sustainability metrics, such as carbon emissions, water use, waste management, energy consumption, sustainable sourcing, transportation trends, and more, the project directly aligns with the 10 Sustainability Commitments outlined in the university's Sustainability & Climate Action Plan. These tools will empower students, faculty, and staff to understand where the university stands in its sustainability efforts and identify actionable pathways for contributing to long-term goals.

Providing clear, accessible data helps address common barriers to engagement, such as feelings of paralysis or focusing on low-impact areas. For example, while landscaping irrigation is often perceived as a major water use concern, 90-95% of this water comes from reclaimed sources. In contrast, the university's cooling towers consume 40-45% of its potable water, representing a far greater opportunity for conservation. Sharing insights like these through dashboards and storytelling will encourage the campus community to prioritize impactful actions and foster informed decision-making.

The project also enhances the Office's capacity to communicate success stories and progress. By treating stories as data, qualitative outcomes, such as those from Campus Sustainability Fund projects, will complement quantitative metrics to present a holistic picture of the university's sustainability efforts. Sharing these narratives through outreach initiatives will inspire greater participation and connection to sustainability work.

Additionally, the project will enhance the Office's outreach efforts by integrating data and insights into workshops, public events, and partnerships with student organizations. As funding allows, we aim to establish new educational programs that promote sustainability and behavior change across campus. These programs will leverage data from this project to engage departments and labs, encouraging the adoption of best practices in energy and resource conservation.

To reach those not currently engaged in sustainability, the project will leverage creative outreach methods, including tabling, interactive presentations, and digital campaigns. Public-facing dashboards and visualizations will simplify complex information and make it accessible to diverse audiences, encouraging a broader spectrum of students and employees to participate.

By improving the campus community's understanding of sustainability challenges and opportunities, this project will drive a cultural shift toward informed, proactive engagement. It ensures that every individual has the tools and knowledge needed to contribute meaningfully to the university's sustainability goals.