

The Astronomical Footprint

“Returning the night sky to a sustained and star-filled canvas through a committee willing to educate and alleviate the issues associated with wasted energy related to light pollution”

Request for Proposals

Grant Opportunity

Sustainable Pittsburgh in partnership with Local Government Academy

Proposals due: **July 28 by 5 p.m.**

Introduction:

Imagine if a starlit sky was available to the world for only one day of the year. Millions and millions of people would gather in anticipation to gaze upward and behold the stars above. The sky is available every night, but for too many of us, we do not or cannot always take advantage of its beauty and wonder. The invisibility of the stars, due to the glares of light pollution, limits our vision and overall visual access to the wonders in the sky. It is truly one of our heaven-gifted, natural rights.

Today, society works to preserve natural capital that is imperative to our survival: air quality, clean water, and healthy flora and fauna. Too seldom do we consider the benefits of our starry night sky and the ill effects of ever-present light pollution. Because of light pollution, humans have become detached from the night sky, forgetting its beauty and importance. In the United States alone, 40 percent of the population has lost the ability to view the night sky. A visible starry night not only provides us with access to our natural world, but also facilitates discovery and life-changing educational moments for children and adults. A clear night sky sparks interest and involvement from everyone. A society with the ability to see stars every night is one that is more unified, grounded and inspired. Seeing something as big as the star-filled sky stirs a sense of commonality, humbleness and shared humanity within us. This helps us place in perspective the common problems that we all face every day. Access to the night sky can help us realize that we are a part of something that connects us with one another every day: planet earth.

Preserving our nighttime views can also save money. The turning off of a light switch is a small yet very impactful action. This simple act multiplied can have a large impact in rendering back to us ability to see the stars. In addition to the wonder that our night sky brings, mitigating light pollution pays multiple dividends such as cutting the cost of electric bills and, in turn, reducing the amount of carbon emission associated with the generation of electricity that powers our lights. Estimates show that \$2.2 billion is wasted annually on inefficient lighting, which produces 14.7 million tons of carbon waste. The act of conserving light not only saves money for businesses and households, but also sheds light upon important environmental issues.

The effects of an overly illuminated community can be negative for plants, wildlife and animals as they migrate and travel through the area. Some plants only bloom at night, and artificial light disrupts this process. Birds face a similar disturbance, as they are thrown off their paths of migration due to unnatural light disturbances. Reducing light pollution can result in a beautiful sky; a safe space for human, plant, and animal life; and an improved environment. Action to alleviate light pollution that drowns out our night sky starts at the offices of municipalities, extends to residences and commercial establishments, and ends with the community benefit of a more beautiful sky.

Funding Opportunity:

In partnership with the Local Government Academy, Sustainable Pittsburgh's 2014 summer interns through The Heinz Endowments Summer Youth Philanthropy Internship Program are honored to announce a new grant opportunity: “The Astronomical Footprint.” We seek to fund municipalities (which may partner with a nonprofit(s) and/or other community-based organizations) that will mitigate sources of light pollution by establishing or expanding a special citizens’ committee that has standing with the municipal government and will be responsible for working on this issue.

Upon realizing that the night sky is not visible to everyone every night, we have decided that advocating for change to alleviate light pollution starts with local government. We suggest the citizens’

committee that is formed or expanded focus on education and municipal leadership. There are many ways that this could happen. The committee should inform and educate the community on different ways to conserve energy. For example, the committee should strive beyond simply replacing incandescent lights with energy efficient LED lights and spread knowledge about how helpful and less wasteful it is to turn off the lights at night. Additionally, we are interested in applications whereby the community committee develops partnerships to deliver programs to educate residents about “astronomical literacy” by offering or connecting to basic classes or other educational opportunities on astronomy. This would be particularly helpful when targeting youth. Of further interest would be provision of community field trips for the public to gather in groups or independently to view the stars at night and share knowledge inter-generationally about the wonders of the sky. The committee should also work collaboratively with the municipality to determine and adopt appropriate, model codes and ordinances that focus on mitigation of light pollution.

In summary, the community committee will work towards a sustainable program that will remain active for years beyond its initial creation, mainly focusing on the mitigation of light pollution. We seek municipalities that are interested in saving money through reducing light pollution while giving the public access to the free, beautiful attraction located in the sky above: the stars at night.

Funding will be awarded from a total available sum of \$25,000 to a municipality, or municipalities, that also may partner with nonprofit organizations, schools, community centers and/or local libraries. Multiple grants may be awarded. New ideas that have not been listed in this RFP are welcomed and encouraged.

Program Goals Include, but are Not Limited to:

Sustainability: To provide a long-lasting impact on the community and its people focused on energy savings and the development of local government legislation.

Suggestion:

- Organize a citizens’ committee (or integrate within an existing one) to assist with the formation of codes and ordinances to support the turning off of lights, in businesses or homes, that interfere with the visibility of stars in the sky.

Energy: To conserve energy emitted by light and to lower costs associated with energy, thus also reducing carbon and other emissions.

Suggestion:

- The committee works with the municipality to adopt additional measures to assist and incentivize residences and commercial establishments in conserving energy, particularly as associated with nighttime lighting.

Education: To educate and inform about the importance of energy savings and the beauty of the sky.

Suggestion:

- Hold informational sessions and programs via creation of partnerships with community-based organizations to educate and inform individuals about issues associated with light pollution.
- Organize field trips to observatories or open spaces to learn more about astronomy, the natural science and sociology associated with the night sky, and to observe the stars.

Decreasing light pollution: To advocate for the importance of mitigating light pollution and for awareness of its ill effects.

Suggestion:

- Develop programs to work with municipal facilities, residents and commercial interests to shield and lower the wattage of outdoor lighting.

Who May Apply:

Any municipality within southwestern Pennsylvania (10-county region) interested in improving the visibility of and sustaining the natural night sky is eligible to respond to this RFP. Applications are favored that include municipal partnerships with community-based organizations such as nonprofit organizations, schools, libraries and community centers.

Application Prerequisites

To be eligible to be considered for this grant, municipalities must earn (or pledge to earn) certification through the Sustainable Pennsylvania Community Certification program. This program can be found online at: <http://www.sustainablepacommunitycertification.org>. Municipalities can earn various levels of recognition based on their sustainability-aligned performance. To begin the process of becoming certified or pledging to become certified, the municipality may obtain the initial entry password by calling: (412)-258-6643 (Court Gould, Sustainable Pittsburgh), or (412)-874-6301 (Alexandra Sorce, senior intern). Municipalities must be registered to pledge or already be certified by the due date of this application.

Application/Proposal Questions

1. Why is helping our night sky to become more visible to everyone an important sustainability issue for your community?
2. The required community committee should work to sustain, educate, conserve energy and decrease light pollution, as stated above. How will you ensure that this happens?
3. In what ways will your ideas address specific problems or opportunities that your community faces?
4. How long do you think it will take for your work to become recognized and put in effect in other areas? What might you do to inform others of your leadership and assist in their efforts to emulate your successes?
5. What challenges might your project face? How will you plan to adapt to challenges or problems?
6. If there are any community-based organizations that will work with the municipality, please state the name of the organization, their mission, and provide the name of a contact person with whom we can connect to validate the partnership.
7. Will the municipality (and/or partnered organizations) establish a new citizens' committee or expand the scope of a pre-existing committee that has standing with the municipal government?
8. Have you earned certification or pledged to become certified through Sustainable Pittsburgh's Sustainable Pennsylvania Community Certification program?
9. Noticing impactful change in light pollution is challenging due to the expansiveness of the sky. What are some ways that you will measure your success and document the active change that your committee will achieve?

The following resource may prove to be helpful in completing the application for "The Astronomical Footprint" funding opportunity: <http://www.polcouncil.org/>.

Please refer all questions or concerns to the interns: Alexandra Sorce, Diamond Rodriguez, Willie James, Symphony Kendrick and Nick Koebley.

Email: asorce@heinzinterns.org

Phone: Alexandra Sorce, (412) 874-6301