

Date of Presentation: March 31, 2022 | 2:30-3:30 MST | 25-30 minutes

What kind of entities make up the Energy Insecurity Workshop group?

- Public Health
- Data Analytics
- CBOs
- Utilities
- Govt. Workers - City of Phoenix, Department of Housing, etc.
- Academia - from ASU

Who has access from Arizona?

- Individuals from **Maricopa County**
- Individuals from **Arizona Public Services**
- An individual from **Unlimited Potential, AZ**

[Greenlink Equity Map \(GEM\)](#)

Purpose

The intention of this presentation is to reintroduce the Greenlink Equity Map (GEM) to the Energy Insecurity Workgroup for the following reasons:

1. To refresh peoples' memories that GEM exists and is a valuable resource to identify distributional inequities throughout Arizona (and the rest of the United States).
2. To hear about people who are regularly using the tool and better understand their specific use-cases, as well as review some of GEM's recent [success stories](#) and discuss how GEM can contribute to your respective work.
3. To create space for questions and feedback, as well as explore what is to come with version 2 launching May of this year.

Overview - [Demo Script](#)

- **WHO is Greenlink Analytics?**
 - Greenlink Analytics is a 501(c)3 that uses data for good. Our expertise is centered around energy and equity data supported to be used alongside strong community engagement practices. We aim to advance the transition to clean energy as fast and fair as possible.
 - We work with cities all across the U.S. For example, we are currently working with Denver, Columbus, Charlotte, Atlanta, and Orlando on our new equity index - a new indicator coming in version 2 that I will tell you more about later - as well as [50 Leadership Cities](#), Phoenix being one.
 - We also have scholarships giving free access to local CBOs.
- **WHAT is GEM?**
 - GEM is an online map designed to help visualize intersectional, equity-related issues and better understand how burdens are spread across neighborhoods. The platform currently provides over 35 [equity indicators](#) at a neighborhood/census tract level, providing critical data to encourage more equitable climate solutions.
- **HOW should GEM be used?**

- GEM is meant to be used collaboratively by cities and frontline communities to advance social equity strategies that will also accelerate climate action.
- When these GEM maps are coupled with stories of communities' experiences, the resulting shared data analysis can serve as a foundation for unlocking strategies to close racial equity gaps. It can also help create solutions for climate preparedness, public health, and other crises. To develop the GEM Platform and Process Guide.

Use-Cases - Success Stories

- **Public Health > Asthma & Energy Burden > City of Charlotte, North Carolina**
 - The City of Charlotte has been working with GEM in partnership with Clean Air Carolina, an organization that advocates for the health of all North Carolinians through equitable and collaborative solutions and initiatives.
 - Because Clean Air Carolina's work has a heavy focus on air pollution and health, they are specifically using GEM to layer asthma and energy burden in the cities of Charlotte and Raleigh.
 - With this data, they will be able to identify certain neighborhoods with health disparities related to air pollution across both cities. These findings would also allow them to identify opportunities for energy improvements within these neighborhoods.
- **Energy Justice > Energy Burden > City of Philadelphia, Pennsylvania**
 - The City of Philadelphia Office of Sustainability has been using GEM for guidance on investments in energy burdens and climate justice in their Energy Burden Focus Groups to address disparity in Philadelphia communities. These Focus Groups provide the City an opportunity to directly hear from Philadelphians about their experiences with housing and energy use.
 - At each meeting, facilitators use the GEM maps to show energy burdens in different neighborhoods and how they relate to other indicators such as racial composition, asthma rates, eviction rates, housing type, and more. They've found the maps to be useful when talking with community based organization leaders for joint-meaning making as well as for knowledge exchange to drive positive change.
- **Public Policy > Equitable Climate Plans > City of Cleveland, Ohio**
 - The City of Cleveland used GEM and were able to identify the top 100 majority-black communities in Cleveland experiencing the worst energy burden, while only 1 majority white community fell within the top third experiencing energy burden. With this information, they targeted organizations and neighborhoods to take part in clean energy community surveys in order to drive Cleveland's Clean and Equitable Energy Future Plan.
 - View the full plan [here](#).
 - Cleveland staff worked interdepartmentally to incorporate this mapping into the work of their city planning and equity offices.
 - The City has also been working together with Cleveland Neighborhood Progress and Cleveland Tree Coalition on a project related to energy burden, tree planting, and urban heat island. The 2020 Cleveland Tree Plan update recommends a strategic and equitable neighborhood based tree planting strategy based on a vulnerability index. Using GEM

data, they have been able to strategically design tree planting programs across the city in communities with heavy utility burdens and disparities.

- Utilities > Equitable & Reliable Data > **City of Honolulu, Hawaii**
 - The City of Honolulu has been using GEM to look at energy burden trends across the city. While analyzing our GEM data, they learned that their data from Hawaiian Electric Companies (HECO) was slightly different. After studying multiple years of HECO data, we came to the conclusion that the discrepancies were coming from the difference in using bill data (HECO) and survey data (GEM and our Census data).
 - Having access to GEM energy data has encouraged energy stakeholders including the City to break down silos and share data to best understand what the community needs are. Multi-family homes with master meters would be aggregated bill data, whereas individual survey results would lead to different calculated values for energy burden.
 - They've been strategizing on how to move forward with more solar panels on homes, especially for low-income areas, and how to distribute the benefits and burdens of the energy transition more equitably.

Other cross-sectional / intersectional use-cases

[Greenlink Equity Map \(GEM\)](#)

*Navigate over to GEM & explore!

- Health Insurance Stress & High Energy Burden > Maricopa County