

ENERGY RESOURCES

The topic of various energy sources and weighing the pros and cons of each source was a theme woven throughout Workshop discussions. Participants engaged in dialogue about the short- and long-term impacts of relying on various energy resources and discussed how consumers and communities connect with those resources.

In discussions about the current and future energy mix, participants focused their comments on renewable energy sources such as solar and wind, nuclear energy and fossil fuels. They want to learn more about the viability, feasibility and reliability of those sources. They are also interested in learning more about infrastructure options that could connect them with those sources and how such structures would give access to a more diverse energy mix.

Many participants want and expect a certain level of responsibility in determining and managing their own energy resources. However, they differ in how they define the ultimate goal of partnership opportunities related to working together to manage options. Some envision partnerships as a means of bringing together diverse communities and consumers. Others would be interested in utilizing partnership opportunities as a means of achieving a greater level of individual energy independence. Within the conversations, participants conveyed a desire for and expectation of continued access to reliable and safe energy.

Diverse Energy Mix

Workshop participants engaged in lively discussion about the value and benefit of having a diverse energy mix. While some expressed the need for a better understanding of the current sources being used, others extolled the virtues of their preferred energy sources and discussed how to have greater access to power from those sources. In conversations about what the optimal mix of energy resources would include, participants said they were interested in exploration and implementation of renewable resources such as solar and wind, while others said additional options should also be considered including geothermal, hydrogen, steam, methane and hydropower.

- *"Diversity in any system is essential."*
- *"Working toward a cleaner mix of energy AND a diverse mix."*
- *"There seems to be a tension between the bedrock of needing to be safe and reliable, versus the imperative need to be clean, and being based on renewables. I want to see them figure that out for a win/win, not an either/or. I think there is one; we just have to be more creative."*
- *"We are not in a good place for solar, we are not in a very good place for wind. I would like them to get to carbon free as fast as possible, and I would like them to consider nuclear power."*
- *"What about water? We hear about solar and wind, what about water?"*

Community Solar and Other Partnership Options

Many participants recognized the value of solar energy but are concerned that solar technology is beyond the financial reach of many customers. Several conversations occurred at the Workshop regarding partnerships that make the technology affordable. Participants commented that they found the concept of community solar to be very attractive, and they are interested in exploring other ideas for working together to create energy partnerships that benefit the community as a whole.

They also identified other benefits to community solar, such as greater awareness and buy-in because of the higher visibility of the infrastructure. Participants frequently commented that they would welcome more engagement around the decision-making process concerning their own individual and community energy usage. They recognize that changes in infrastructure and the development of partnership opportunities will provide maximum options for ensuring the affordability and sustainability of renewable energy resources. Some participants support partnerships as a means of increasing affordability of renewable energy options. Others favor partnerships that will provide maximum flexibility and a greater degree of energy independence.

- *"Community solar, like the idea. Gives access to people who might not be able to afford them otherwise. Like that they can identify and have the people who want to pay for it, buy it."*
- *"Energy is invisible to people. Energy is lost in distribution, so local neighborhood distribution centers that people can relate to more, because they can SEE IT. Community solar is a great idea. Having a sense of ownership and feeling like they are making a difference."*
- *"MGE should get more involved with the installation of solar panels for schools, homeowners and businesses."*
- *"New subdivision could have its own common solar panels for general use, for that community."*
- *"What happens when private companies and private users interact and take initiatives to build their own energy systems and networks and how does that affect the entire community?"*

Transitioning From Coal to Renewables

Many Workshop participants question the long-term viability of coal as a primary energy resource. They recognize the necessity for the current use of coal but only until more reliable and sustainable energy resources can be further developed. They support research and exploration of a variety of renewable and sustainable energy resources but recognize that the area's geography might limit the reliability of some renewable resources. A number of Workshop participants expressed interest in learning more about nuclear energy options and believe that nuclear sources are an effective and reliable alternative not impacted by adverse climate or geographic restrictions. Participants also expressed concern about the cost impacts of the transition.

- *"Focusing on moving energy away from coal sourced energy, what assumptions and data were considered? Where can we push?"*
- *"Coal is cheap – how will advancement affect costs?"*
- *"Balance wind and solar while moving from coal at the same time, gearing safety."*
- *"Smooth transition needed to renewables."*
- *"Transition away from coal. What [does MGE] do to influence climate to create conditions to transition to cleaner resources? What's their capacity?"*
- *"Nuclear should be investigated."*
- *"Interested in environmental sustainability and want to push MGE to be even more focused on renewable energy, especially solar and wind power, push past 2030 goals."*

Reliability and Safety

As Workshop participants considered and discussed the community's energy goals and strategies for reaching those goals, there was a top-of-mind concern about energy reliability and safety. Discussions in these areas focused on infrastructure considerations and how to ensure backup mechanisms to ensure a steady, uninterrupted source of power.

Many also spoke of issues related to grid security and strategies for creating a system that was protected against extreme weather conditions and other natural disasters as well as acts of terrorism. Woven throughout discussions in this area were concerns about ensuring the same level of security and reliability was available for all businesses and residential customers regardless of size, income level, demographics, etc.

Concerns were raised about safeguarding businesses – especially businesses that provide vital services such as hospitals and manufacturing companies for sensitive products – to ensure they have a level of reliability that provides uninterrupted service. And, there was a recognition of both the importance of the grid as well as the shared responsibility for its maintenance.

- *"Reliability is the top priority."*
- *"Create more micro-grids. If one part of the grid goes down, it doesn't affect everywhere else."*
- *"Grid is expensive and essential. Everyone needs to have a stake in it to maintain it."*

- *"Safety needs to be as important of a topic as conservation for minority population and non-English speakers to keep them safe."*
- *"How can we make a house feel safe and reliable for elderly and low-income?"*
- *"Concerned about safety, security, and aesthetic - making sure we don't face a shutdown (i.e. acts of terrorism)."*