

1. Resilience Planning

Pittsburgh's resiliency goals focus on mitigating the impacts of extreme weather such as flooding, extreme temperatures and winter storms. The city is also focused on repairing and replacing aging infrastructure such as parts of the energy grid, bridges, lock/dam systems, transportation networks, water/sewer management systems and housing stock. Furthermore, the city is also looking to tackle issues stemming from air, water and soil contamination from its industrial past.

The city recently completed a report highlighting Pittsburgh's future strategy for resilience, [ONE PGH, Resilient Pittsburgh](#). The strategy has helped Pittsburgh pursue a more integrated approach to resiliency planning as it aligns with similar programs aimed at fostering sustainable growth throughout the city. The resilience framework outlined in the plan is focused on empowering all residents and communities throughout the city, promoting efficient land use to improve connectivity, enhancing environmental stewardship and reducing emissions, and improving overall city performance by increasing efficiency and promoting advanced technologies. Pittsburgh has also recently released a third version of their [Climate Action Plan](#). Within the plan, the energy generation section discusses the need to build out more district-scale approaches to energy delivery, with a focus on microgrids and thermal energy systems.

2. Program or Project Implementation

In December 2014, Pittsburgh was selected as a member of the second cohort of the [100 Resilient Cities \(100RC\)](#) network initiated by the Rockefeller Foundation. The 100RC initiative supported Pittsburgh in appointing a Chief Resilience Officer, helped develop a robust resiliency strategy, provided access to solutions, partners and service providers from the public, private and NGO sectors, and facilitated access to a global network of member cities. In addition, Pittsburgh was selected as one of ten cities to pilot the [Resilience AmeriCorps program](#). As a result, four AmeriCorps VISTA fellows served the city over a two-year period, focusing mainly on community resiliency events.

The city is integrating its resilience strategy into core government activities as evidenced by the institutionalization of the Resilient Pittsburgh team to the Division of Sustainability and Resilience within the Department of City Planning. The Division of Sustainability and Resilience will serve as the lead office for strategy implementation, focusing on four pathways geared towards convening action groups, establishing resilience frameworks, and integrating resilience practices into civic engagement and public events. In addition to these partnerships within the city government, Pittsburgh has also made significant advances collaborating with the University of Pittsburgh (Pitt) and the Danish Energy Agency. The partners recently formed a knowledge exchange with Danish cities that resulted in identification of several critical areas where district energy may be feasible to enhance resilience.

Pittsburgh is investing in microgrid infrastructure as one way to improve overall resiliency for the city. Building upon its current district energy systems, Pittsburgh is planning to enhance infrastructure and deploy advanced technologies to create a [grid of microgrids](#). Two RFP's are currently underway for microgrids at the [Pittsburgh International Airport](#) and the [Hazelwood Green](#) area along the Monongahela River. Energy evaluations are also being conducted for district-scale development areas to consolidate city facilities and operations. CHP coupled with solar are potential generating resources to serve the site consolidations.

3. Lessons Learned

CHP for Resiliency Accelerator Partner Profile

The importance of focusing on partnership development and maintaining strong relationships with a variety of different stakeholders and partners is critical for advancing energy resilience strategies at the city level. Resilience is a unifying concept that can be shared across sectors to motivate a variety of people and organizations and facilitate an integrated approach to community planning. Pittsburgh's resilience planning efforts have brought together individuals from city government, utilities, universities, national labs, and the private sector.

In addition, the complex policy landscape surrounding microgrids and distributed energy deployment poses a significant challenge. In the future, the City hopes to find more ways to create the regulatory space that fully enables transformative microgrid technologies. Staff are exploring the benefits of socially responsible microgrids that provide resilience in areas where it is needed most and where all community members can benefit.

4. Additional Information

- ▶ [Pittsburgh Preliminary Resilience Assessment](#)
- ▶ [Pittsburgh Resilience Strategy 2017](#)
- ▶ [Pittsburgh Microgrid Initiative](#)
- ▶ [Metro21: Smart Cities Institute](#)