

1. Resilience Planning

Established in 2014, the [New York City Mayor's Office of Recovery and Resiliency](#) (ORR) leads the City's comprehensive effort to build a stronger, more resilient New York. ORR spearheads a \$20 billion resiliency program to help prepare the City for the evolving impacts of climate change and other 21st century threats. Potential risks include coastal storm surges with sea level rise, heat waves and flooding. The ORR also focuses on implementing coastal flood mitigation strategies, mitigating and adapting buildings to climate risks, and promoting practices to enhance socioeconomic resiliency.

Vulnerability to extreme heat is a growing concern in NY State and ORR has prioritized the study of heat vulnerabilities in the City. Rising temperatures have increased the number of heat-related deaths and made it a persistent public health issue. A [heat vulnerability index](#) helps inform state and local planning efforts and decision making in the energy sector. For example, the urban heat island effect may influence choices about future energy resources and the type of infrastructure in place needed to provide cooler environments for communities affected by extreme heat.

The ORR also oversees New York City's multilayered OneNYC climate resiliency program. Released in 2015, [One New York: The Plan for a Strong and Just City \(OneNYC\)](#) serves as the foundation of ORR's work. The plan identifies specific measures to strengthen the City's 520 miles of shorelines, upgrade the City's stock of over 1 million buildings, protect the City's vast infrastructure and broad array of critical services, and make homes, businesses, and most vulnerable neighborhoods safer and more vibrant. This plan builds off the recommendations laid out in an earlier plan, [A Stronger, More Resilient New York](#), released in 2013. The plan focuses on improving both upstream critical infrastructure that drives key services, and critical infrastructure at the end-user level to improve the overall resilience of the city.

2. Program or Project Implementation

The City's multi-layered implementation strategy includes planning and policy studies, legislative actions, and investments in neighborhood buildings, critical infrastructure and coastal protection projects. The City also regularly convenes a Climate Change Adaptation Task Force (CCATF), including most recently in 2015. The CCATF brings together critical infrastructure stakeholders to assess how climate change, including sea level rise, heat and precipitation, will affect key assets and recommendations to address these risks. In conjunction with CCATF, ORR has also developed [a repository of resiliency guidelines](#), which are currently being piloted. The ORR has also been coordinating its climate resiliency activities with local investor-owned utilities such as Con Edison and National Grid. For example, Con Edison has invested over \$1 billion in storm hardening measures since 2013. The City also successfully advocated for a storm hardening collaborative in National Grid's 2016 rate case, and is an active stakeholder in [NY Prize](#) projects and advancing community energy planning including microgrids and district energy systems.

In addition to the programs detailed above, New York City has been active in reducing greenhouse gas (GHG) emissions and has a goal of reducing GHGs 80% by the year 2050, as detailed in [New York City's Roadmap to 80x50](#). Significant gains in energy efficiency, distributed generation, and community energy systems will be necessary to meet this target, in addition to significant increases in renewable generation at the wholesale level and beneficial electrification.

3. Lessons Learned

The ORR recognizes that trust and collaboration in the planning process is essential from the beginning.

CHP for Resiliency Accelerator Partner Profile

There are limits to the types and quality of information shared on a voluntary basis, especially related to services that the City does not directly control, such as transportation, telecom and energy. In addition, it is also important to work with sector experts to structure risk assessments and strike the right balance between asset-based and systems-based assessments. In ORR's experience, the ability to build public-private partnerships for infrastructure financing is highly dependent on making a successful business case for climate change resiliency. In that regard, how to value resiliency and how to embed these valuations into appropriate analyses continues to be a challenge

While resilience is a key consideration in future planning, it is helpful to combine the benefits of resilience with other potential co-benefits to keep people and stakeholders interested in pursuing resilience goals. Appropriately designed CHP systems, whether as an anchor for a microgrid, a single-building solution or part of a hybrid solution is one example of that, as it can help support resiliency and sustainability goals. The City is required by local law to assess City facilities for potential CHP adoption every 5 years. In the time since Hurricane Sandy, many people and organizations have already made significant investments of time, money, and resources, and the sense of urgency around additional resilience-building has shifted for some. Maintaining interest for these efforts can be difficult, but there is an ongoing effort to make sure the City is communicating and planning for all potential climate risks.

4. Additional Information

- ▶ [NYC Mayor's Office of Recovery and Resiliency \(ORR\)](#)
- ▶ [OneNYC 2018 Progress Report](#)