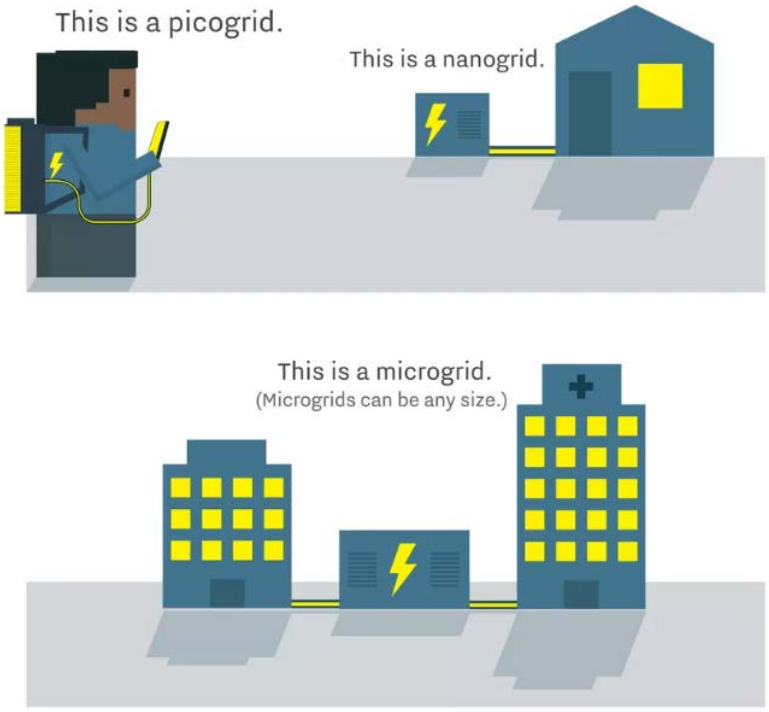
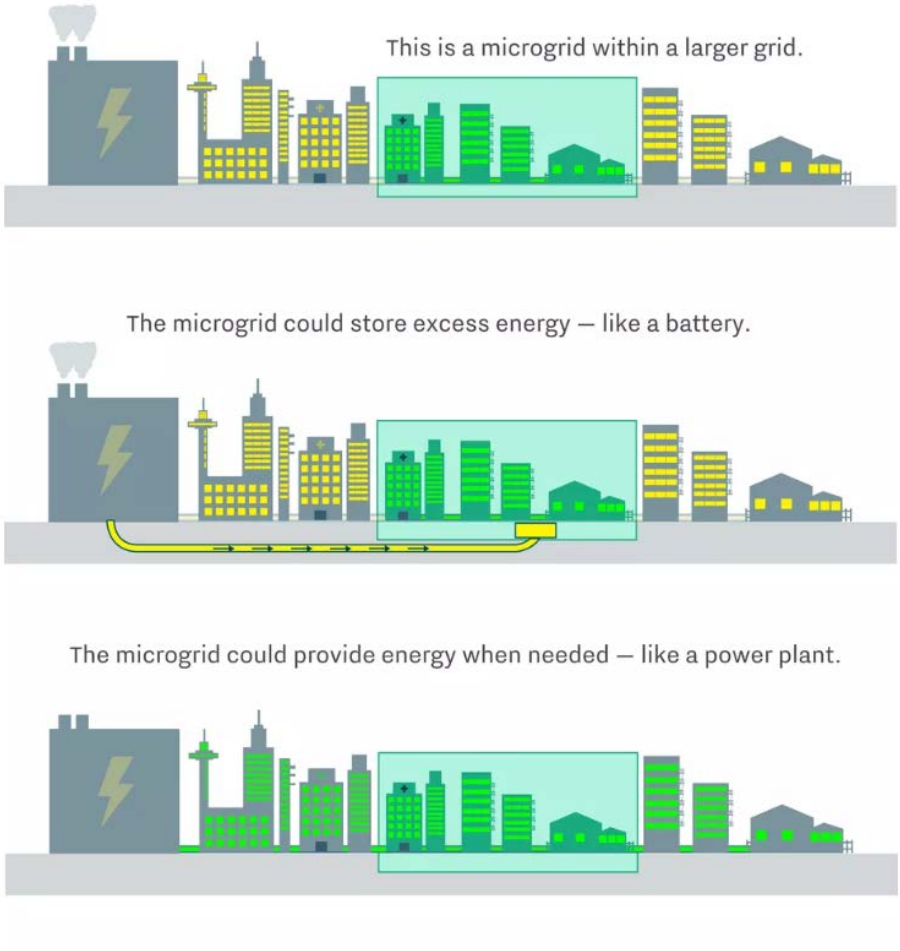
GENERAL MICROGRID FAQs

What is a Microgrid? How do they work?

A grid is any combination of power sources, power users, wires to connect them, and some sort of control system to operate it all. A microgrid is a small, freestanding microgrid, usually with the ability to connect and disconnect (Island mode) from a larger more central grid.

A microgrid usually connects a range of stakeholders including residents, private businesses, public infrastructure and most importantly critical disaster response and recovery facilities. During blue sky days (days without a power disruption event) the microgrid can generate, distribute and store energy within the microgrid. The microgrid can also export energy to the central grid. During power disruption events, the microgrid disconnects from the larger grid (island mode) and services entities connected to the microgrid.



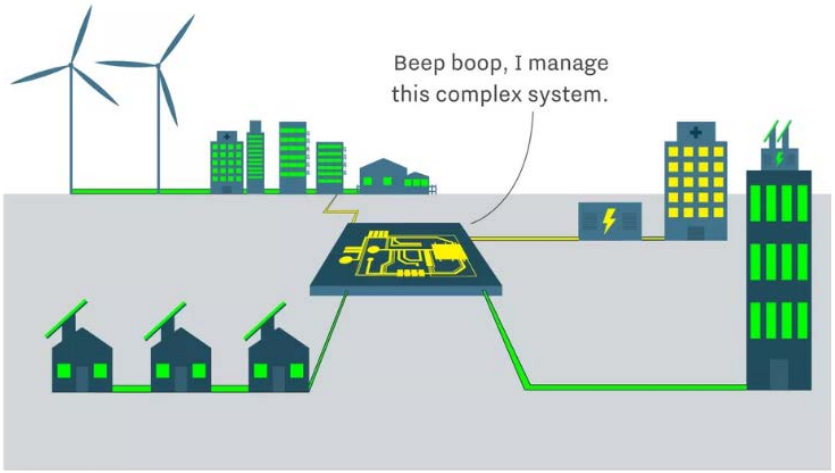


Why do communities need Microgrids? What do Microgrids accomplish?

Microgrids are a blooming technology that can be used as a key tool for disaster response and recovery. Municipalities, power authorities and utilities are beginning to implement Microgrids as a major part of their disaster preparedness plans. Microgrids are a valuable and versatile resource because they service the public during disaster events by providing emergency backup power, and during blue-sky days as a load modifier and peak shaver.

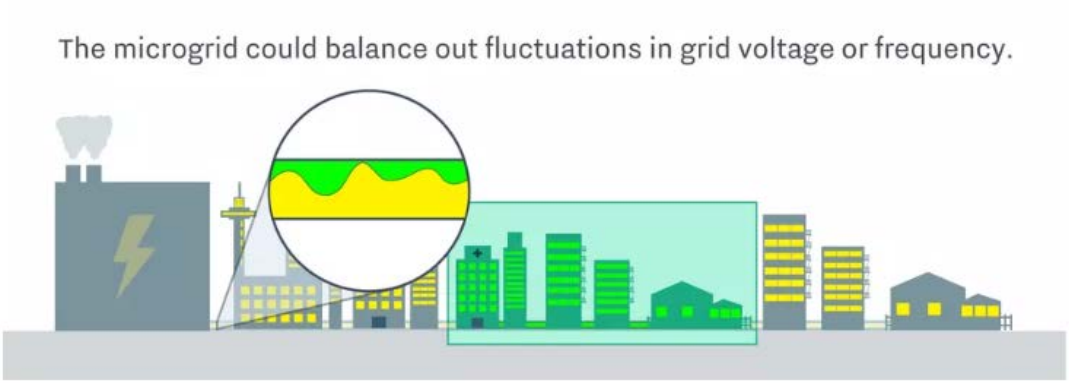
What are key challenges?

Integrating microgrids into existing legacy systems can create a few key challenges. It is essential to engage stakeholders early and often to create a microgrid that is financially and technically feasible. Brokering an agreement between utilities and essential facilities such as hospitals, fire stations and shelters can create logistical hurdles, but a well-planned microgrid can provide reliability and resiliency for decades.



What are the future of Microgrids?

In addition to being a key tool for storm recovery and response, Microgrids can be used as a powerful tool for connecting locally based renewable energy sources. Microgrids can balance loads and store energy from multiple generation sources such as wind, solar, hydro and natural gas.



All images retrieved from Vox Media:

https://www.vox.com/energy-and-environment/2017/12/15/16714146/greener-more-reliable-more-resilient-grid-microgrids Roberts, D., & Chang, A. (2018, May 24)

Program and Implementation FAQ's

How was GOSR's microgrid program started?

In response to Hurricane Irene, Lee and Superstorm Sandy GOSR and the New York State Research and Development Authority (NYSERDA), partnered to further advance the proliferation of Microgrids throughout the state of New York. NYSERDA funded over 100 feasibility studies throughout the state, kickstarting the interest and excitement for microgrids.

How did GOSR select projects?

GOSR analyzed all proposals that fell in disaster declared counties relating to hurricane Irene and Lee as well as Superstorm Sandy. GOSR also performed a thorough analysis of all projects eligible under HUD regulations and guidelines. GOSR met with numerous potential subrecipients to discuss interest and feasibility. After numerous meetings and additional analysis, GOSR selected three projects in distinct areas and regions.

What is a "subrecipient" and how are they chosen?

A subrecipient is the entity—a municipality, other government agency, or eligible nonprofit organization—that will be charged with implementing a Microgrid project. GOSR selects subrecipients on the basis of a number of factors, including but not exclusive to, their experience managing specific types of projects, ability to comply with federal and state regulations, and their capacity. Subrecipients are project specific. A project will provide the same benefit to a community regardless of the subrecipient or state agency selected.

What is the role of GOSR staff and consulting firms moving forward?

GOSR Staff is working with municipalities, government agencies, nonprofit organizations, elected officials, community leaders, and other key stakeholders to ensure a smooth implementation process. The work of the consulting firms that assisted Committees during the planning phase of the NYRCR Program has concluded. The State has procured a grant management firm to support the implementation phase of this work.

What are some of the HUD requirements for the State and subrecipients?

GOSR is responsible for complying with HUD requirements as a condition of the grant source, CDBG-DR, that is awarded to subrecipients to carry out selected recovery and resiliency projects. Certain HUD requirements apply to GOSR, its subrecipients, and all contractors and subcontractors working on projects. Particular requirements that cover project implementation responsibilities include financial management controls, project documentation and record keeping, reporting and payment, procurement/contracting, and eligible uses for assets (e.g., property, equipment) that receive federal funding. Applicable federal, state, and local regulations must also be followed, and include items such as federal and state environmental review requirements (NEPA/SEQR), federal HUD Section 3 rules, federal, State Minority- and Woman-Owned Business Enterprise (M/WBE), and Service Disabled Veteran-Owned Business goals, and Federal and State labor requirements, such as Davis-Bacon rules.

What are the microgrid programs next steps?

GOSR will continue working closely with subrecipients to advance the current microgrid projects through the implementation process.

Who is the Microgrid programs main point of contact?

Spencer Heckwolf is the Microgrid Program Manager. He can be reached at spencer.heckwolf@stormrecovery.ny.gov.