OFFICE OF RESILIENCE & SUSTAINABILITY
CITY OF NEW ORLEANS

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July 1, 2022

Clerk of Council Lora W. Johnson
1300 Perdido Street, Suite 2W40
New Orleans, LA 70112

Dear Clerk of Council Johnson,

Thank you for the opportunity for the City of New Orleans to contribute comments to the City Council's Grid Resilience and Storm Hardening Docket UD-21-03 (the "Docket"). The Office of Resilience & Sustainability has consulted and collaborated with the Office of Utilities and the Hazard Mitigation Office to prepare this submission. Like the City Council, the City of New Orleans is committed to building a city that is resilient, equitable and sustainable. These goals are especially important in light of recent storms, and so we thank the Council for its timely focus on resilience and storm hardening in this docket.

While the City has not officially intervened in this docket, there is significant work being undertaken around resilience and sustainability. As such, the City has reviewed Council Resolution R-21-401 and offers the following comments for consideration by the Council and in hopes of collaboration across our joint resilience and storm hardening efforts.

A. City Comments on Entergy New Orleans Resilience and Storm Hardening Presentations

Over the course of various technical meetings, Entergy New Orleans (ENO) has presented an array of important resilience and storm hardening objectives. In general, the City supports ENO's proposals and offers the following comments and recommendations:

1. ENO's Upgraded Construction Standards

As ENO rebuilds assets in the public rights-of-way, the company should coordinate closely with City Departments on permitting, construction and restoration to mitigate the negative impact on the public. ENO should develop a transparent plan and schedule for deploying upgrades, prioritizing areas of frequent or extended outages, so community members can track progress in their area. In addition, the City and ENO should improve the permitting process and communications to reduce negative impacts on communities, ensure compliance with the terms of the permits, and that the right-of-way is properly restored at the conclusion of work.

2. Protecting ENO Assets with Flood Mitigation

Where possible, ENO should coordinate with City Agencies on state and federal funding for flood mitigation and other infrastructure investments, ensuring these efforts prioritize

vulnerable areas where critical equipment may be impacted in a flood event, areas of frequent or extended outages, and areas that have been historically underinvested.

3. **ENO's Strategic Undergrounding of Critical Lines and Feeders**

Similar to construction upgrades, ENO should ensure undergrounding prioritizes areas of frequent or extended outages, and areas that have been historically underinvested. This information should be transparent and accessible so that stakeholders can understand how undergrounding improvements will serve their community and the broader City and region. In doing this work, ENO should coordinate with the City of New Orleans Department of Public Works, RoadWork NOLA, and the Joint Infrastructure Recovery Request (JIRR) project to enable strategic undergrounding as part of ongoing roadwork and excavation. In addition, ENO should coordinate with City Agencies on state and federal funding for infrastructure investments.

4. **ENO's Vegetation Removal Program**

Proactive trimming and hazard removal should be planned and conducted in close coordination with the City's Department of Parks and Parkways, following all permitting and restoration rules, as well as recommendations from the City's arborists.

5. **ENO's Use of Distributed Energy Resources (DER)/Battery for Islanding**

ENO should work closely with the City's Hazard Mitigation Office, as well as community organizations like Together New Orleans' Community Lighthouse initiative, on the development of Distributed Energy Resources (DER) and battery backup programs. As described below, the City's Hazard Mitigation Office is coordinating the development of large-scale Microgrid projects in strategic communities to provide power and essential services during an outage. Similarly, the Community Lighthouse project seeks to distribute these resources into communities at the neighborhood level. While the grid can potentially benefit from an array of DERs, ENO should collaborate closely with projects to ensure safe islanding and coordination between ENO, City, and third party microgrid projects.

6. **ENO's Asset Modernization Plan**

The City supports ENO's efforts to modernize assets, especially insofar as modernization can allow ENO to proactively identify problems (such as the need for load-shedding and temporary islanding) and reduce costs to ratepayers.

B. City of New Orleans Energy Resilience, Equity and Sustainability Efforts

The City of New Orleans is currently undertaking a variety of projects to support energy resilience, equity, and sustainability. These energy-related projects are in addition to ongoing flood mitigation, drainage improvement, and economic development initiatives as well. ENO should identify strategies to utilize DERs developed by the community as part of ENO's overall grid resilience.

1. Microgrids

Working with the U.S. Department of Energy's Sandia National Lab, the City has identified a number of potential locations for Microgrids to serve the community in the event of a power outage. In addition, the City should work closely with ENO to design and explore partnership opportunities for the development of microgrids. The City has identified one site for a microgrid/solar farm (former Agricultural Street landfill site) which has received an EPA feasibility study as well as funding through the Capital Improvement Program. The City is also studying other potential locations to identify costs, benefits, challenges and opportunities for partnership and funding. Below is a rough estimate of current project costs and benefits:

a. Investment – Invest in distributed energy resources such as rooftop solar, battery backup, natural gas generators, asset hardening, smart controls, and transfer switches to establish power generation, storage and distribution on a community-scale in the event of a prolonged outage.
b. Timeframe – 12-18 month project development, 12-18 month project construction.
c. Benefits – Provide continuity of services through islanded power for surrounding residents and businesses per Microgrid.
d. Cost – Approximately $25 million per Microgrid location.
e. Cost Recovery – Federal funding through FEMA (BRIC), DOE, IIJA, and similar programs.

2. DER + Battery (Rooftop Solar, Community Solar)

The City is exploring opportunities to install Distributed Energy Resources and battery backups on City buildings and other partner-owned facilities. The Community Solar Program provides opportunities to engage the broader community in the benefits of renewable energy.

a. Investment – Installation of Rooftop Solar and Battery Backup on City Buildings, potentially utilizing Community Solar rules to enable community-wide subscribers.
b. Timeframe – 6 month project planning, 12 month project construction
c. Benefits – Provide clean, renewable energy; Reduce city energy costs; Provide Community Solar cost-savings and benefits to low-income subscribers citywide.
d. Cost – Approximately $300,000 to $1 million per city building depending on size and capacity.

e. Cost Recovery – Partnership with Finance New Orleans to finance construction; Partnership with private investors to fund Community Solar; utilization of GO Bond funding; cost-savings through energy cost reduction.

3. Generator Readiness Project

The City currently benefits from City-owned transfer switches to support generators at 8 NORD facilities. These sites proved to be resilience hubs during Hurricane Ida, as they were used to provide shelter, services, power, and connectivity for the surrounding communities. Based on the success of these sites, the City and ENO will invest in expanding to 7 additional sites including city buildings, libraries, Council on Aging sites, and other sites that meet the criteria for sheltering and support during an outage. While these will utilize natural gas generators, not renewable energy, it is better than diesel in terms of GHG emissions and availability in a storm.

a. Investment – Working in partnership with ENO, add transfer switches to 7 sites on the grid side of the meter, and run gas lines and hardware to all 15 of the sites so that there are supply lines to get buildings up and running quickly.
b. Timeframe – 6 months
c. Benefits – Provide reliable backup power to 15 critical community sites at no upfront cost to the city. Once connected, these 15 critical sites will serve as DERs for use in a black start situation.
d. Cost – ENO will install at no upfront cost to the city.
e. Cost Recovery – Costs for the additional sites will be recovered by ENO under the regulatory oversight of the New Orleans City Council.

4. Community Lighthouse as Virtual Slack Bus

The City of New Orleans and Together New Orleans, a nonprofit community organization, along with the Louisiana State University (LSU) are collaborating to apply for federal funding through the DOE Renewables Advancing Community Energy Resilience (RACER) grant program for the Smart Equitable Energy Resilience (SEER) project, a Smart, coordinated approach for energy resilience in disadvantaged communities using solar PV. Specifically, the program will invest in the Community Lighthouse project, a network of commercial-scale solar and battery storage backup that will serve as community resilience hubs in the event of an outage.

a. Investment – Invest in Community Lighthouse DERs and battery backup with Grid-Forming (GFM) inverters to create a Virtual Slack Bus for the grid.
b. Timeframe – 12-18 months
c. Benefits – Provide resilience in neighborhoods with high social vulnerability and inability to evacuate and enable grid to operate safely between normal modes and disaster resilience modes.

d. Cost – $300,000 to $1,000,000
e. Cost Recovery – $300,000 to $1,000,000 over 15 years

5. **U.S. DOE Communities LEAP (Local Energy Action Program)**

The City of New Orleans was selected as one of 24 communities nationally to participate in the DOE Communities LEAP program, which aims to facilitate sustained community-wide economic and environmental benefits primarily through DOE's clean energy deployment work. This opportunity is specifically open to low-income, energy-burdened communities that are also experiencing either direct environmental justice impacts, or direct economic impacts from a shift away from historical reliance on fossil fuels. Under the Communities LEAP Pilot, DOE will provide supportive services for community-driven clean energy transitions. We are confident that programs developed under LEAP will help the city leverage additional federal infrastructure funds for clean energy resilience projects.

a. Investment – The U.S. DOE will invest approximately $600,000 to $1 million in funds to support the City of New Orleans Communities LEAP initiative.
b. Timeframe – 18 months
c. Benefits – Communities LEAP will help New Orleans develop place-based approaches to building a clean and resilient economy for the future. By providing targeted technical assistance, Communities LEAP will open the door for communities to access significant, additional DOE and other federal government programs, including those included in the $1.3 trillion Bipartisan Infrastructure Law.
d. Cost – No upfront cost to City of New Orleans.
e. Cost Recovery – No cost to be recovered. However, benefits will build the New Orleans economy, leverage federal infrastructure funds and promote community-wide resilience.

Sincerely,

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