Before The Council of the City of New Orleans

Re: DISTRIBUTED ENERGY RESOURCE PROGRAM

DOCKET UD-24-02

RESILIENCE NEW ORLEANS DATA RESPONSES

By and through its undersigned Resilience New Orleans (RNO) respectfully submits this proposal to the Council of the City of New Orleans ("the Council") and intervening Parties in the above captioned proceeding in response to the Council's October 24, 2024 Resolution R-24-624, providing data responses to Advisor's questions by April 12, 2025.

RNO is a Louisiana-based nonprofit with a mission to advocate for sensible energy and electric policies to best ensure New Orleans remains a vital place to live and work. RNO seeks to ensure that New Orleans's has a resilient, reliable and clean power grid and that electricity is affordable to all customers.

RNO respectfully submits these responses to Advisor's data requests filed in Docket No. UD-24-02. RNO followed the Advisor's instructions to the best of our ability, but should any mistakes be made, please contact Casey DeMoss for corrections.

CNO-RNO 1-1 Expansion of Energy Smart's Battery Pilot

"Please refer to page 2 of the RNO Proposal and the statements: "To obtain DER goals at a significantly lower cost, the Battery pilot should be expanded to incentive purchases of battery systems to help more homeowners, and possibly business customers. Allowing businesses to participate could help achieve carbon goals more quickly, but commercial customers shouldn't be allowed to deplete or expand the budget. Residential customers should have a protected budget carveout if the program is expanded to include commercial ratepayers:"

a. Related to the phrase "...expanded to incentive purchase of battery systems..." please describe the targeted levels and structure of residential and business incentives, and whether these incentives would also apply to existing participants in the Battery pilot.

RNO thanks the Advisors for the opportunity to clarify the position on targeted levels and structure of incentives. After researching TNO/AAE's and ENO's incentive levels, we noticed that the incentives were expressed in different ways (capacity v. energy). In order to make an apples-apples comparison, I created this chart:

		Incentive Formula	
Program	Incentive Basis	(Powerwall 2)	Total Incentive

	\$1,000 per kW		
TNO / AAE	deliverable	5 kW × \$1,000	\$5,000
TNO + LMI adder	+20% bonus	\$5,000 × 1.20	\$6,000
	\$150 per kWh		
Entergy (non-LMI)	(retrofit)	13.5 kWh × \$150	\$2,025
	\$400 per kWh		
Entergy (LMI)	(retrofit)	13.5 kWh × \$400	\$5,400

Then, if we add the tax credit (30%) to the final cost of battery installation (\$13,000 estimation of the Powerwall 2, labor, and materials), we get this:

	Powerwall 2			Total	Out-of-Po
Program	Install cost	Incentive	Tax Credit (Realized)•	Value	cket
	\$13,000			\$8,90	
TNO / AAE		\$5,000	\$3,900 (full credit)	0	\$4,100
TNO + LMI	\$13,000			\$6,00	
Adder		\$6,000	\$0 (no credit used)	0	\$7,000
Entergy	\$13,000			\$5,92	
(Non-LMI)		\$2,025	\$3,900 (full credit)	5	\$7,075
	\$13,000			\$5,40	
Entergy (LMI)		\$5,400	\$0 (no credit used)	0	\$7,600

^{*}Tax credit = $30\% \times 13000 total cost = \$3,900. The tax credit applies in addition to the incentive, reducing the customer's net cost, except in LMI cases where the customer likely doesn't have that level of tax liability.

The different incentive options for LMI customers are similar, but I'd argue that \$7k still puts batteries out of reach for these families. For LMI, it probably makes more sense to contract with a company that already knows how to work with this community. Posigen could be a good partner for the LMI solar+battery incentive. I am not aware of their current numbers, but as of a few years ago they had more than 5,000 solar installations in Orleans Parish, many of which were LMI. Leasing a battery and receiving the performance incentive could be a very good deal for LMI ratepayers.

RNO supports using energy (kWh) as the metric for the incentive because when it comes time to communicate the program to the larger public, kWh will make more sense since that is what people see on their bills.

Entergy's incentive for wealthier customers is lower and that is appropriate. With the performance-based incentives of \$600 a year and assuming the battery is only providing a resilience benefit and not lowering the bill, the payback period for the new battery is about 11.6 years. Essentially, customers are getting a free battery and helping the grid to boot.

A ten year participation requirement seems long but three years is way too short. DR participation will provide stability and offer cost savings during peak hours, which the grid and ratepayers will depend on. What I'd like to see most with the timing of DR participation is that the use of the resources is consistent and predictable over multiple years to stabilize the larger grid system. I can imagine a scenario where the grid suddenly loses 1000's of DR kW resources when customer's BESS time commitment ends.

A longer commitment time coupled with a staggered installation approach would grow the program predictably giving the system time to adjust to new resources, and later, the retirement of those resources. If we install 800-900 battery systems per year over the next 5 years, then we effectively give ourselves 15 years of this DR resource (assuming the ten year commitment).

The performance-based incentive of \$600 per year seems appropriate. Based on MISO south's peak summer spot prices the average savings from one battery could look like this:

MISO Spot Price (\$/MWh)	\$/kW for 2-Hour Event (5kW battery)
\$37 (average summer price)	\$37 × 2 ÷ 1,000 = \$0.074/kW
\$100 (moderate peak)	\$100 × 2 ÷ 1,000 = \$0.20/kW
\$500 (high peak)	\$500 × 2 ÷ 1,000 = \$1.00/kW
\$1,500 (Hurricane Beryl event)	\$1,500 × 2 ÷ 1,000 = \$3.00/kW

According to <u>Solar Choice</u>, a 5kW solar system and a Powerwall 2 cut electric bills by \$2,000 in their first year, with the battery contributing just over \$1,100 of that savings. So, participants are likely giving up potential bill savings, but the tradeoff is a free battery after the commitment period ends.

For current BESS participants, I don't see why they couldn't take advantage of the program. It's not ideal though. If the thinking is that DR resources are beneficial because they are distributed, then the best use of program dollars is to get new participants into the program. I feel for the people who already bought a battery – I would be bummed if I spent \$13000 only to find out there is an incentive that could have saved me thousands. But that's not a reason to allow for wasteful duplications. I'd like to see a limit on existing BESS participants, such that if they have a large solar system (10kW+) that a second battery would be useful, then they qualify for the incentive.

b. Please explain RNO's proposed "protected budget carveout," illustrating the carveout with an example.

Business customers are more responsive to utility programs. We saw this with Energy Smart, the business incentives were depleted in a few months. So, if there is a business incentive, it needs to be separate. Here's an example:

Protected Budget Carveout

<u>To safeguard equity and ensure residential participation:</u>

\$2M total annual budget

\$1.25M reserved for residential customers (60%)

\$.75M for commercial customers

This protects homeowners from being crowded out by larger commercial projects. Should the commercial budget not be fully utilized, leftover funds could roll over to the residential budget with Council approval.

CNO-RNO 1-2 – Carbon Offset Program

Please refer to the RNO proposal item 2 - Create a "New Orleans Carbon Offset" program:

a. Please identify the references or source(s) which define Carbon Offset as a certificate representing the reduction of one metric ton (2,205 lbs.) of carbon dioxide emissions;

Definition of Carbon Offset

Carbon offsets are typically defined as certificates representing the reduction or removal of one metric ton of carbon dioxide or equivalent gases (CO₂e).

- o The U.S. Environmental Protection Agency (<u>US EPA</u>) defines a carbon offset as representing "a metric ton of emissions avoided or reduced."
- o The <u>Carbon Offset Guide</u>, developed by the Stockholm Environment Institute and Greenhouse Gas Management Institute, states: "A single credit is typically denominated to represent the equivalent of one metric ton of CO₂ avoided or removed."
- o <u>Verra</u>, a leading global carbon credit registry, issues Verified Carbon Units (VCUs), each representing one metric ton of CO₂ reduced or removed from the atmosphere.

b. Please provide specific references and sample reports related to the cited companies that have raised significant funds, including a profit, for projects using the Carbon Offset;

1. NCX (formerly SilviaTerra)

Sector: Forest carbon offsets

Model: Pays private landowners to delay timber harvest in exchange for carbon credits.

- Funds Raised: Over \$50 million in payments to landowners by 2023
- Platform: Verified by Climate Action Reserve (CAR) and other registries
- Impact: Monetizes forest management on 100+ million acres in the U.S.
- Works with municipalities to create carbon protected areas

- Clients purchase carbon offsets which are verified
- Report here.

2. The Yurok Tribe - California

Sector: Indigenous forest conservation

Model: Uses Verra's Verified Carbon Standard to issue credits for forest preservation.

- Funds Raised: Tens of millions through sales of Verified Carbon Units (VCUs)
- Buyers: Includes major corporations like Microsoft and Shell
- Use of Funds: Reacquired 50,000 acres of ancestral land and invested in economic development
- Report link.

3. Cnaught

Sector: High-integrity carbon removal portfolios (engineered and nature-based)

Model: Curated procurement platform that sells long-term, fixed-price carbon offset portfolios to businesses and institutions

- Funding Model: Earns revenue from service fees and portfolio management for buyers
- Projects Include: Biochar in California, direct air capture (Climeworks), regenerative agriculture, reforestation
- Profitability: Raised \$17 million in venture capital; growing client base includes Stripe and climate-forward

4. Cool Effect - Nonprofit Marketplace

Sector: Global small-scale carbon projects

Model: Transparent marketplace that sells verified carbon credits to individuals and businesses

- Funding Model: Project developers earn revenue through credit sales
- Projects Include: Methane capture in India, clean cookstoves in Honduras, forest preservation in the U.S.
- Profitability: Returns shared with project communities and NGOs
- Access report here.

c. Please provide references to regulatory jurisdictions that have approved and/or enabled a Carbon Offset program as a source of funds;

California (Statewide – Cap-and-Trade Program)

- The California Air Resources Board (CARB) allows regulated entities to meet part of their emissions reduction obligations using verified carbon offsets.
- Offsets must come from CARB-approved protocols (e.g., forest, livestock methane, mine methane).
- Funds from offset purchases support private, nonprofit, and tribal landowners who maintain or enhance carbon stocks.
- Reference: CARB Compliance Offset Program Overview www.arb.ca.gov

Washington State (Cap-and-Invest Program)

- Launched in 2023, Washington's climate law allows up to 8% of compliance obligations to be met with offsets.
- Offset credits must be from approved registries (e.g., ACR, Verra) and meet environmental integrity criteria.
- Revenue from carbon credit sales can fund local climate resilience and environmental justice efforts.
- Reference: WA Ecology Cap-and-Invest Offset Program ecology.wa.gov

New York State (Voluntary Market Enablement)

- The New York State Energy Research and Development Authority (NYSERDA) supports the creation and sale of voluntary carbon offsets as part of clean energy and forestry initiatives.
- Offsets are used to support community-based forest preservation and reforestation projects.
- Reference: NYSERDA Carbon Offset Pilot Programs nyserda.ny.gov

City of Atlanta, Georgia

- Program: Urban forest carbon offset program
- Action: Preserved 216-acre Lake Charlotte Nature Preserve and sold carbon credits via City Forest Credits, a nonprofit registry
- Use of Funds: To support ongoing land stewardship
- Revenue: Expected to generate millions in offset sales over 40 years
- Partnership: Collaborated with City Forest Credits, a nonprofit specializing in urban forest carbon credits, to calculate the forest's carbon offset potential.
- Reference: City Forest Credits Atlanta Project Summary

City of Austin, Texas

Program: Carbon offset funding through the Austin Community Climate Plan

- Action: Allows voluntary carbon offset contributions from residents and businesses
- Use of Funds: Funds local GHG-reducing projects like building electrification and solar for affordable housing

Yurok Tribe, California

- Program: Tribal forest carbon project
- Registry: Verra Verified Carbon Standard (VCS)
- Revenue: **Over** \$80 million in carbon credit sales
- Use of Funds: Land reacquisition, fire stewardship, tribal forestry jobs

City of New York (Parks Department)

- Program: Urban forest carbon offset feasibility assessment (not yet implemented, but studied)
- Partnered With: City Forest Credits and Natural Areas Conservancy
- Goal: Monetize carbon sequestration from city-owned forest lands

San Luis Obispo's 'Lead by Example' Initiative

- Overview: The City of San Luis Obispo, California, adopted the "Lead by Example: A Plan for Carbon Neutral Municipal Operations" in 2021, aiming for carbon-neutral city operations by 2030.
- Strategic Planning: Developed a comprehensive plan detailing actions to reduce operational greenhouse gas emissions.
- Progress Reporting: Published annual progress reports to maintain transparency and track implementation.
- Work Program: Established a four-year work program targeting an 84% reduction in climate pollution from city operations.
- Source: City of San Luis Obispo

Boulder's Climate Action Plan Tax

- Overview: In 2006, Boulder, Colorado, implemented the Climate Action Plan (CAP) Tax to fund efforts in reducing greenhouse gas emissions.
- Funding Mechanism: Levied an excise tax on electricity consumption for residential, commercial, and industrial customers.
- Resource Allocation: Generated funds are allocated to renewable energy, energy efficiency, and transportation projects.
- Community Engagement: Engaged citizens through voting, reflecting public support for climate initiatives.
- Source: City of Boulder

Copenhagen's CopenPay Initiative

 Overview: In 2024, Copenhagen introduced CopenPay, a scheme offering rewards to tourists and locals for participating in climate-friendly activities.

- Incentivization: Participants engage in activities like collecting plastic waste or volunteering in urban gardens to earn perks such as free meals or services.
- Public-Private Partnership: Collaborated with over two dozen local businesses to offer rewards, promoting sustainable tourism and local engagement.
- Awareness Campaign: Aimed to bridge the gap between the desire to act sustainably and the means to do so, encouraging environmentally friendly behaviors.

Sample Ordinance:

ORDINANCE NO. XXXX – ESTABLISHING A NEW ORLEANS CARBON OFFSET PROGRAM SECTION 1. TITLE

This ordinance shall be known as the New Orleans Carbon Offset and Resilience Program Act of 2025.

SECTION 2. PURPOSE AND INTENT

The purpose of this ordinance is to:

Establish a city-managed carbon offset program to fund climate resilience, energy efficiency, and distributed energy resource (DER) initiatives.

Generate verified carbon credits through local environmental projects, including urban reforestation, energy retrofits, solar and battery deployment, and wetland preservation. Provide a revenue stream for underfunded environmental programs and resilience efforts, particularly in frontline communities.

SECTION 3. DEFINITIONS

Carbon Offset: A certificate representing the reduction, avoidance, or removal of one metric ton (2,205 lbs.) of carbon dioxide equivalent (CO₂e) emissions.

Verifying Entity: An independent, certified organization (e.g., Verra, Gold Standard, City Forest Credits) responsible for validating and verifying carbon reductions.

Offset Project: Any eligible activity within the city or surrounding parishes that quantifiably reduces carbon emissions or enhances carbon sequestration.

SECTION 4. ESTABLISHMENT OF THE PROGRAM

A. Creation of the Program

The City of New Orleans shall create the New Orleans Carbon Offset Program (NOCOP) to generate, certify, and market locally produced carbon offsets.

B. Oversight

The program shall be overseen by the Office of Sustainability and Resilience, in partnership with the Department of Environmental Quality and community stakeholders.

C. Administrative Structure

A Program Administrator shall be appointed to coordinate offset projects, manage verification contracts, and ensure public transparency.

A Carbon Offset Advisory Board shall be formed, including:

Councilmembers or appointees

Environmental experts

Community-based organizations

Academic and industry stakeholders

SECTION 5. ELIGIBLE PROJECTS

Projects may include but are not limited to:

Urban tree planting and forest preservation (modeled after Atlanta)

Home energy efficiency retrofits for low-income households

DER installations (e.g., solar + storage) in community-serving buildings

Wetland restoration and green infrastructure projects

Transportation electrification pilots

SECTION 6. VERIFICATION AND SALE

All offsets shall be certified through recognized registries (e.g., Verra, City Forest Credits, Gold Standard).

Verified offsets may be sold to:

Corporations seeking voluntary offsets

Government entities meeting climate mandates

Event organizers, tourists, or local residents via opt-in programs (modeled after Copenhagen)

SECTION 7. REVENUE USE

All proceeds from offset sales shall be placed in the Resilience Fund, a special account managed by the City, to support:

Expansion of Energy Smart programs

Local climate adaptation projects

Workforce development in green infrastructure and energy sectors

Matching funds for federal/state resilience grants

Equity Note: At least 40% of revenues must benefit low-income or disadvantaged communities, in alignment with Justice40 goals.

SECTION 8. REPORTING AND TRANSPARENCY

The Program Administrator shall publish an annual public report including:

Number and type of offsets generated

Revenue generated and where it was spent

GHG reductions achieved

Demographics of benefiting neighborhoods

SECTION 9. EFFECTIVE DATE AND SUNSET

This ordinance shall take effect July 1, 2025. A full program evaluation will be delivered to City Council by December 31, 2025, with recommendations for continuation or expansion.

d. Please describe the entities who would administer and market the Carbon Offset program, the corresponding costs of the program, and the fiscal and reporting responsibilities to the Council.

RNO envisions the City of New Orleans contracting with a local nonprofit to manage the program, possibly including:

- The City Office of Resilience
- CURO
- Local nonprofit
- Academic partners (e.g., Tulane, Xavier, UNO)
- Third-party verifiers/registries like Verra or Gold Standard

We could start small and then establish the internal infrastructure that eventually ran the program. The best program would be completely New Orleans' owned, operated, and invested. We would need a department to collect the funds. The department would pass funds to the nonprofit to install carbon offset projects. The nonprofit will need secure verification for the carbon offsets from the proposed projects.

Estimated administrative program costs (WAG):

- \$200K/year, including administration, verification, and outreach.
- Project installation costs would be a straight pass-through cost.
- Annual reporting to the Council would include:
 - o Tons of CO₂ offset
 - o Project locations and beneficiaries
 - o Funds raised and disbursed

CNO-RNO 1-3 - Time-of-Use Pricing Tariff

Please refer to RNO proposal item 3 - Offer a "Time of Use" pricing tariff:

a. Referring to the time-of-use tariff as "cost-effective," please cite specific utility time-of-use tariffs that have documented analyses supporting their cost effectiveness;

TOU pricing has demonstrated cost-effectiveness by encouraging load shifting and reducing peak demand:

SMUD (Sacramento Municipal Utility District): Residential TOU reduced evening peak load by 5–8%.

SMUD offers a Time-of-Day (5-8 p.m.) Rate:

Time Period Hours Rate (¢/kWh) Season

Off-Peak All other hours 12.15¢ Non-Summer

Time Period Hours	Rate (¢/kWh) Season
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Peak	5:00 PM – 8:00 PM	16.78¢	Non-Summer
Off-Peak	All other hours	15.05¢	Summer
Mid-Peak	12:00 PM - 5:00 PM	20.77¢	Summer
Peak	5:00 PM - 8:00 PM	36.55¢	Summer

Austin Energy

Pilot program: Tested opt-in TOU rates on ~1,500 customers.

Findings: ~60% of participants saved money, and there was a measurable shift in peak-hour

consumption.

Policy impact: Results used to inform future rate design and demand response planning.

California IOUs (PG&E, SCE, SDG&E)

CPUC-mandated TOU resulted in measurable system savings and reduced GHG emissions. State-mandated rollout: All investor-owned utilities transitioned most customers to TOU plans by 2020–2021.

Documented results: TOU rates contributed to flattening peak demand, reducing system-wide generation costs, and incentivizing DER integration.

CPUC Analysis: Found TOU pricing to be cost-effective for the system and behaviorally effective in reducing grid strain.

Hawaiian Flectric

Customer Energy Report pilot: Offered TOU rates and feedback tools.

Impact: Reduced evening peak load and improved integration of rooftop solar.

HECO's Shift and Save program offers TOU rates as follows:

Time Period Hours Oahu (¢/kWh) Maui (¢/kWh) Hawaii Island (¢/kWh)

 Daytime
 9:00 AM - 5:00 PM
 15.7529
 18.2337
 21.5048

 Overnight
 10:00 PM - 9:00 AM 31.5058
 36.4674
 43.0096

 Evening Peak
 5:00 PM - 10:00 PM 47.2587
 54.7011
 64.5144

Note: Rates are subject to applicable surcharges. Hawaiian Electric

b. Please explain if this proposal refers to implementing time-of-use tariffs for all residential and commercial customers, optional or opt-out, or whether the proposal refers to specific tariffs related to implementing a DER program similar to tariffs proposed by other parties in this docket;

Resilience New Orleans proposes a voluntary Time-of-Use (TOU) pilot tariff designed to complement Distributed Energy Resource (DER) adoption. This program provides pricing signals that incentivize battery use, solar exports, and load shifting—enhancing grid stability and helping customers save.

CNO-RNO 1-4 – Energy Smart and Electrification

Please refer to RNO proposal item 4 - Facilitate Electrification through Energy Smart and explain how the cited Energy Smart programs and measures would be "facilitated" and/or "integrated" into a comprehensive DER program

RNO proposes integrating Energy Smart offerings into DER deployment in two key ways:

- 1. Bundled offerings: Combine Energy Smart rebates of electric appliance replacements of gas appliances with DER incentives to enhance total home energy efficiency.
- 2. Equity alignment: Align program criteria to target Energy Smart-eligible households, especially those using gas, to encourage electrification and decrease energy burden.

Resilience New Orleans appreciates the opportunity to respond to this discovery request. Our recommendations reflect a commitment to equitable investment, grid reliability, and long-term value for ratepayers. We urge the Council to adopt proven models that combine utility infrastructure with community impact, ensuring that public dollars and carbon revenues deliver resilience where it's needed most. We look forward to continued collaboration with the Council, Advisors, Stakeholders, and Entergy to shape a distributed energy future that works for all New Orleanians.

Respectfully submitted,

/s/ Casey DeMoss

Casey DeMoss
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing First Set of Data Requests responses has been
served upon "The Official Service List" via electronic mail this 12th day of April, 2025.

/s/ Casey DeMoss		
Casey DeMoss	 	