Southern Renewable Energy Association
P.O. Box 14858, Haltom City, TX 76117

July 15, 2019

Ms. Lora W. Johnson
Clerk of Council
City Hall - Room 1E09
1300 Perdido Street
New Orleans, LA 70112

RE: Docket No. UD-19-01, *A Rulemaking Proceeding to Establish Renewable Portfolio Standards.*

Dear Ms. Johnson:

Please find attached the Southern Renewable Energy Association's response comments in Docket No. UD-19-01, *A Rulemaking Proceeding to Establish Renewable Portfolio Standards.*

If you have any questions, please call me at 337-303-3723.

Sincerely,

Simon Mahan
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BEFORE THE COUNCIL OF THE CITY OF NEW ORLEANS

In Re: A RULEMAKING PROCEEDING
TO ESTABLISH RENEWABLE
PORTFOLIO STANDARDS

DOCKET UD-19-01

Southern Renewable Energy Association Responses to Comments Regarding a New Orleans Renewable Portfolio Standard

The Southern Renewable Energy Association (SREA) appreciates the opportunities to submit the following responses to intervener comments regarding a proposed Renewable Portfolio Standard (RPS) for the City of New Orleans. SREA would like to reiterate that establishing a moderate mandate expeditiously is not only technologically feasible, but also economically beneficial due to the near-term phase-out of federal tax credits. To that end, SREA recommends that the New Orleans City Council:

- Establish a 20%+ by 2023 RPS, ramping up to 60% by 2030 for renewable energy only, and a longer-term goal of 100% clean (zero carbon) energy
- Create competitive bidding processes for fulfilling the RPS
- Allow for modest carve-outs for local generation
- Require Entergy New Orleans (ENO) to move beyond capacity-only planning

The following responses may not fully capture SREA's positions on all items; therefore, we encourage the New Orleans City Council to continue to develop opportunities for stakeholder feedback and various iterations of the proposed RPS. We are eager to work with the City Council and interveners in this docket to craft the city's RPS.

Response Regarding Clean Energy Standards

Several nuclear proponents, including ENO, suggested that the City Council adopt a "Clean Energy Standard" (CES) as opposed to a "Renewable Portfolio Standard" (RPS). Most comments regarding a CES focused on supporting nuclear energy; however, most comments also failed to mention that CES efforts, at least at the federal level, also allow and embrace natural gas power plants as additional "clean" technology, even without carbon capture and sequestration (CCS). In May 2019, the United States' Congress introduced the "Clean Energy Standard Act of 2019", a bill that would include renewable energy, nuclear and, "give partial credit for low-carbon sources that emit less than 0.4 metric tons of carbon dioxide per megawatt-hour," which would include natural gas power plants.[1] For comparison, the proposed legislation would require 90% "clean" energy by 2040. If the New Orleans City Council adopts a CES, and allows nuclear power and natural gas as compliance tools, then

ENO has already virtually met such a goal and the city's efforts in this docket will not result in new renewable energy generation. SREA discourages the implementation of a CES as opposed to an RPS.

Response Regarding Nuclear Reactors

SREA is not inherently opposed to nuclear energy; however, the vast majority of comments regarding support for nuclear energy entirely ignore the actual costs bore on the City of New Orleans and its residents. As SREA pointed out in our previous comments:

- ENO's contracts with its affiliate company nuclear reactors are higher cost than new utility-scale renewable energy resources. Maintaining those existing nuclear reactor contracts will be more expensive than new renewables.
- ENO's contracts with its affiliate company nuclear reactors may be long-term in nature and difficult for the utility and the City of New Orleans to exit those contracts.
- Nuclear power is relatively inflexible, both due to its operational requirements as well as the financial need to maintain a high capacity factor to justify its capital expense. This inflexibility leads to two problems. First, it requires the utility to take relatively costly measures for backup power when it goes offline, compared to other generation sources that are not expected to operate as often. Second, it provides little or no ramping services to respond to customer demand or other generation sources.

Because nuclear reactors are so economically uncompetitive and inflexible, several commenters rightfully point out that if New Orleans stops buying energy from Entergy's nuclear reactors at a market premium, those facilities would likely be unable to compete in the MISO market and would eventually retire. Entergy affiliates are likely depending on New Orleans residents to effectively subsidize the cost of some nuclear units by paying higher-than-market rates. Entergy owned a number of nuclear units all across the country, but is selling or shuttering a number of nuclear units because they are so expensive to operate and cannot compete against lower cost resources. Former Entergy reactors include including FitzPatrick (2014), Vermont Yankee (2014), Pilgrim (2019), Indian Point (2021), and Palisades (2022).[2] Soon, Entergy will have no nuclear reactors outside of MISO South.

SREA's proposed renewable-only RPS allows the City of New Orleans the flexibility to maintain its nuclear reactors in the long-term. SREA's proposal for a 20% RPS by 2023, and a 60% RPS by 2030, would allow Entergy to continue to operate its nuclear units to provide up to 40% of the power for the City of New Orleans. At some point, Entergy's nuclear reactors will be retired, just like all other power plants. Given that Entergy has opted to sell or retire all of its other nuclear reactors outside of MISO South, because of their high expense and inability to compete economically, retirement may occur significantly before 60-80 year lifespans that are touted by nuclear proponents. When Entergy's reactors are considered for retirement, SREA urges the City of New Orleans to replace the energy produced with renewable energy resources.

Response Regarding Carve-Outs and Distributed Generation

SREA's recommends that the proposed RPS be constructed simply to allow flexibility. The more complicated New Orleans' RPS is to develop, the more difficult it will be to implement and track, and that difficulty will likely result in higher costs to New Orleans residents. Complicated carve-outs, local build requirements, technology limitations and other types of restrictions reduce operational flexibility.

SREA does support some small level of localized solar power generation as a carve-out, but as stated in SREA's original comments, utility-scale solar energy and wind energy resources are the lowest cost new energy options available to New Orleans. Solar energy and wind energy resources imported into New Orleans using existing, already paid-for, transmission assets could provide power for as little as $0.02 per kilowatt hour (kWh) to $0.03/kWh. Solar energy and wind energy prices are below avoided cost in much of MISO, today. Compared to renewable distributed generation (DG) localized in the City of New Orleans, larger-scale renewable energy projects located outside of the city are significantly lower cost. One commenter suggested a $0.50/kWh price program for localized DG solar; however, that price is approximately 20 times more expensive than utility-scale renewable energy resources.

Localized DG renewable energy resources alone do not inherently guarantee a more resilient local grid system against things like severe weather and flooding. Several commenters noted that Hurricane Katrina knocked out major transmission lines providing power to New Orleans; however, any hurricane of sufficient strength would also pose wind risks to rooftops, and flooding risks to garages or other low-lying residential areas that may house battery backup systems, and even to local fossil fuel power plants reliant on distribution and transmission services along with pipeline or railroad services. Also, all grid-tied residential solar power systems without battery backups are designed to immediately shut off in the case of a blackout to prevent energizing a power line that may need to be serviced by linemen. If a large transmission line fails, it's highly likely local grid-tied rooftop solar systems will power down as well. Geographic diversity can be as important as technological diversity for generation resilience, and overly relying on local resources will miss economic opportunities available outside of the city-gate.

Several commenters rightfully state that micro-grid and energy storage devices would improve resiliency during dangerous storm conditions; however, those technologies are typically outside the scope of an RPS, given that batteries can be charged with non-renewable resources, and micro-grids can operate on natural gas or other fossil fuels. In fact, New Orleans' Sewer and Water Board (S&WB) technically operates a type of micro-grid already, albeit with natural gas instead of renewable energy, and yet that system is still exceptionally frail.[3] Further, New Orleans' largest energy reliability problems are not based on the type of energy resource technology, whether renewable or not. New Orleans' main reliability problems are based on degraded distribution system level infrastructure (such as power lines, transformers, substations, electric meters, etc.) and charismatic fauna like squirrels and cats causing local power outages.[4] SREA recommends micro-grid and energy storage policies and incentives be developed outside this RPS.

Some commenters suggested that multiple "Tiers" be developed for the RPS. Typically, commenters recommended that Tier 1 resources be located within the City of New Orleans and given a high level of "multiplier" renewable energy credits (RECs) to further incentivize those types of resources. REC multipliers do incentivize higher levels of a specific resource; but, at the expense of total renewable energy generated. For instance, one megawatt-hour of electricity generated by a local rooftop solar project may receive two REC's, while one megawatt-hour of electricity generated by a wind farm outside of the city may only receive one REC. A 50% Tier 1 requirement with double RECs would effectively means only half of that power will be renewable (25% of total energy provided). Instead of providing multipliers to certain resources, another approach is to set a reasonable carve-out based on nameplate capacity for local power resources (perhaps 50-100 megawatts).

Commenters also proposed that Tier 2 or Tier 3 resources be located "in Louisiana" or in the MISO system. SREA recognizes that localized power resources do provide other benefits that may be valuable to the New Orleans City Council, such as local economic development, so a Tier 1 "carve-out" for local resources is valuable. But, SREA discourages the creation of multiple Tiers based on "in Louisiana" or "in MISO" requirements for imported renewable energy resources. It is entirely possible that a low-cost renewable energy project in a non-MISO part of Mississippi could provide power into New Orleans via existing transmission systems. Also, not all of Louisiana is located within MISO. For instance, most of the northwestern part of the state (by Shreveport) is in the Southwest Power Pool (SPP), not MISO. Excluding or disincentivizing non-Louisiana and non-MISO resources may increase costs to New Orleans. In keeping with SREA's original comments, we recommend that all renewable energy resources not fulfilling the local carve-out be allowed to bid into a competitive solicitation and then the City Council would be allowed to evaluate all potential projects based on cost and potentially other metrics developed in the future.

Geographic and technological diversity of renewable energy resources helps balance power production. As stated by SREA's original comments, wind energy and solar energy are complimentary resources. Larger solar facilities, outside of the city, are able to optimize power production and include "tracking" systems to reduce cost and boost power production. During large storm events, solar power resources tend to reduce power output due to clouds, while wind energy facilities tend to have higher levels of power production due to higher wind speeds. Solar power resources generally generate higher levels of power during the summertime and afternoons, meanwhile, wind power resources generally are at peak performance during wintertime and at night. SREA's recommendations reduce the RPS complexity, improve flexibility for the City Council, and allow for the lowest cost options to be bid into the compliance system.

Response to Air Products Comments

Air Products' comments note that the company opposes any and all efforts to develop an RPS for New Orleans. The company's opposition to renewable energy in this docket does not match its corporate sustainability claims. According to Air Products' 2019 Sustainability Report, the company claims to set "aggressive environmental performance goals for greenhouse gases, energy, water, and our fleet, and we measure progress to continually

improve our own operations."[5] Purporting to support sustainability efforts to investors while opposing renewable energy to elected officials and decisionmakers appears incongruent.

As stated by other commenters, many major companies are now requiring renewable energy as pre-requisites for siting new facilities. Major employers like Facebook, Google, Amazon, Wal-Mart, Target, Budweiser and others have significant renewable energy goals. Unlike Air Products, those major corporations are actually implementing their corporate sustainability targets. As such, if New Orleans does not adopt a Renewable Portfolio Standard, the city risks losing the interest of new businesses, and ENO loses the opportunity for new load customers. SREA recommends the City Council disregard Air Products' comments.

Response to Entergy New Orleans Comments

Entergy New Orleans (ENO) issued significant comments to this docket. ENO states that, "The experience of other places has shown that the establishment of an RPS is not a workable or cost-effective way to achieve significant carbon reductions." However, ENO also notes that Austin Energy, CPS in San Antonio and Jacksonville Energy Authority in Florida have all established renewable energy targets and goals and met them to some extent. All those cities have lower residential electric bills than Entergy New Orleans (based on 1,000 kWh/month usage). As pointed out in the comments filed by the Alliance for Affordable Energy, and SREA, Entergy New Orleans is paying significantly higher prices for energy from Entergy affiliates than what renewable energy resources could provide today, which potentially helps explain some of the pricing disparity. ENO is also currently involved in a rate case in an attempt to increase rates even further.[6] Therefore, ENO's concern that an RPS will inherently increase costs for New Orleans has been disproven by its own case studies.

Several Cities with RPS's Have Lower Residential Bills than New Orleans

	Avg. Utility Bill per Month ($/1,000 kWh)
Entergy New Orleans[7] (excl. state/city taxes)	$115.95+
CPS, San Antonio[8]	$114
Austin Energy[9]	$102.69
Jacksonville Energy Authority[10]	$89.15

ENO states that "state renewable portfolio standards have been a pricey avenue for curbing C02 emissions" and cites a recent paper from the University of Chicago Energy Policy Institute. Many of the RPS's studied in that paper were implemented well before renewable energy prices dropped so significantly. Also, ENO already pays higher rates for affiliate energy and other cities with RPS's or renewable goals have lower bills than New Orleans. Combined, this information suggests the University of Chicago paper is not as useful in gauging New Orleans' future options.

ENO states that "…CHP and fuel cells that rely upon fossil fuels is counter-productive to the overarching goal of mitigating carbon emissions and helping to address future climate change…" It is entirely possible that CHP and fuel cell technologies would use natural gas or hydrogen more efficiently than any of ENO's current, or proposed, natural gas-fired power plants. However, there is still a possible risk that CHP or fuel cells could use fossil fuels. As

such, ENO has issued a strong stance against the use of all fossil fuels. Therefore, SREA supports ENO's opposition to fossil-fuel based generation and we encourage the New Orleans City Council to follow ENO's recommendation and prohibit the use of fossil fuels in power generation for this RPS.

Response to America's Wetland Foundation

Entergy appended a letter from the America's Wetland Foundation as Attachment A in its filing. Val Marmillion from America's Wetland Foundation penned the letter and submitted it on April 18, 2019; prior to the intervention deadline for this docket, and significantly in advance of ENO's June 3, 2019 comments filed. We note these time stamps because it seems unlikely that Entergy's full comments would have been shared with AWF before this letter was provided. It also seems unlikely that AWF would be a supporter of both "a carbon neutral society" and "the Entergy proposal", given that Entergy's proposal is not 100% carbon neutral, does not preclude new natural gas power plants, and does little to nothing to actually reduce carbon emissions by any significant amount in the near-term. ENO states that, "Within a CES framework, ENO's current plans will increase the percentage of retail sales supplied with zero-emission energy from about 50% to about 63% by 2030…" Effectively, the company's proposal to become 70% "clean" by 2030 results in a roughly 7% improvement over its current plans. SREA supports America's Wetland Foundation's proposal that New Orleans become carbon neutral.

Response to Clean Air Task Force

Entergy appended a letter from the Clean Air Task Force (CATF) as Attachment B in its filing. CATF states, "we will not just need to drop emissions to zero around mid-century; we will likely eventually need negative emissions technologies to remove carbon from the atmosphere. Every molecule of carbon dioxide put in the atmosphere today will continue to warm the earth for centuries. So every molecule we emit today matters - essentially forever. And because carbon simply accumulates in the atmosphere, accelerating warming, the only way to avoid the worst climate change scenarios is, ultimately, to avoid emitting carbon altogether: We need a zero carbon energy system by 2050 or soon after and maximum feasible reductions possible until then." This is a bold statement and it falls short of ENO's actual proposal. If "every molecule we emit today matters", as stated by CATF, then that organization's support of ENO's less-than 100% solution seems incongruent with their stated letter.

CATF goes on to say that attempting to meet 100% of NOLA's RPS with solar would lead to "overproduction in the Spring, and significant deficits in the Spring, as well as in June and August and September." CATF's rough calculations depend on a single year's worth of both load data and solar power generation, does not use the MISO system for balancing, includes no energy storage, no wind power, no hydropower and ignores possible demand response or energy efficiency opportunities. CATF's analysis is not useful because no one is expecting New Orleans to run solely on 100% solar power.

A similar criticism could be levied against nuclear power, that because nuclear power is so inflexible, creating a city running 100% on nuclear power would be excessively expensive. CATF does not address the fact that having inflexible nuclear power harms renewable energy

integration. Nuclear reactors cannot "ramp" up and down quickly to match renewable energy output. SREA's position is that by having a robust mixture of various renewable energy resources, and allowing the New Orleans City Council to determine nuclear power's role, would resolve CATF's concerns.

Because New Orleans is connected to the MISO system, renewable integration is achieved at the system-level, not solely within the city-gate. This is an important oversight of CATF's comments. CATF attempts to diminish this operational reality by stating, "It also may be argued that interconnection of New Orleans to other control areas will alleviate the surplus and deficit problem. While greater interconnections can help at the margins, we must assume that other regions will be pursuing similar levels of decarbonization and are likely to adopt similar levels of variable energy." Because ENO appended CATF's letter in this docket, one can only surmise that ENO is endorsing the view that the entire Entergy footprint in MISO intends to comply with its proposed 70% Clean Energy Standard by 2030 (or, a 100% Clean Energy Standard, based on CATF's statement regarding "every molecule"). Even in that case, MISO has the role and responsibility of handling power dispatch, reliability and balancing.

As SREA noted in our initial comments, significant amounts of data would be necessary from ENO for stakeholders to properly model ideal wind energy, solar energy, energy storage and other resource mixes to minimize costs and maximize performance. CATF stated that, "We obtained hourly electrical load data for New Orleans for the year 2018, from Entergy." It is unclear when Entergy provided CATF with such data, but clearly it was early enough for CATF to provide some level of (albeit inaccurate, misleading and limited) analysis. Such data has not been provided to all interveners in this docket, and we would request that all data be provided equally and transparently to all parties in this docket.

Response to Third Way's Comments

Entergy appended a letter from Third Way as Attachment C in its filing. Much of Third Way's comments focus on retaining existing nuclear reactors. Third Way states that "But we can be certain that New Orleans will not be the place where pioneers in these clean energy fields choose to research, develop, or demonstrate their technologies if local energy policies exclude them from incentives or restrict their access to the market. By making power sector mandates less proscriptive, the Council can achieve its emissions goals while giving New Orleans an opportunity to be a hub for unique, next-generation renewables; carbon capture, use, and storage; advanced nuclear; and other cutting-edge clean energy technologies." However, all nuclear power received by New Orleans is located outside of the city, and no organization has proposed installing new nuclear reactors within the city itself. Therefore, it seems unlikely that retaining the existing nuclear construct would significantly change the makeup of New Orleans' local economy beyond the status quo.

Meanwhile, major companies are requiring 100% renewable energy availability and without that availability (at least on a company-level), it is much more likely that New Orleans will not attract "pioneers in these clean energy fields". Given that other cities like Austin, Jacksonville and San Antonio are already becoming more reliant on renewable energy, with lower rates, New Orleans will need to catch-up and surpass those cities to remain attractive.

Response to Unaffiliated Letter Comments

Entergy appended a letter without organizational attribution but with the electronic listing of various people as Attachment D. Entergy's Attachment D appears to be a letter crafted by an organization called Environmental Progress. The letter includes several signatories, including Michael Shellenberger, Environmental Progresses' president. Mr. Shellenberger has published articles in various news outlets with articles such as, "It Sounds Crazy, But Fukushima, Chernobyl, And Three Mile Island Show Why Nuclear Is Inherently Safe"[11] and "The Real Reason They Hate Nuclear Is Because It Means We Don't Need Renewables".[12] Environmental Progress' website includes several letters similar to the one included by Entergy in this docket, including a letter sent to President Rodrigo R. Duterte[13], current President of the Philippines whom is well-known for creating "death squads" to resolve conflicts in that country. Environmental Progress is encouraging the Philippines, under Duterte's leadership, to become a nuclear power.

Environmental Progress as an organization appears to be singly focused on promoting nuclear power globally. Environmental Progress states that, "Nuclear is 17 percent of Louisiana's total electricity supply and 94 percent of its zero-emitting electricity. But nuclear's importance to the city of New Orleans is more than twice that of the state as a whole, and the city receives power from several nuclear plants including Louisiana's River Bend and Waterford." However, Environmental Progress forgets to mention that the largest share of New Orleans' nuclear power comes from the Grand Gulf nuclear reactor in Mississippi, not Louisiana, and that that reactor operates at significantly higher cost than other reactors in the region.

Environmental Progress goes on to state that, "The use of nuclear power helps Louisiana as a state achieve the lowest electricity prices in the United States, and helps to place New Orleans among the cheapest and cleanest cities for electricity in the country." However, Louisiana's electric rates are higher than Oklahoma's, which has the lowest electric prices in the nation.[14] Oklahoma has low rates because it generates over 30% of its electricity from wind farms,[15] and recently set a record for achieving 65% wind power on an instantaneous basis.[16] Oklahoma is connected to the Southwest Power Pool (SPP) grid system, which is similar to and immediately to the west of MISO. Oklahoma, and all other states within SPP benefit by using a grid operator to adequately dispatch power and provide reliability services, much like what New Orleans is capable of within MISO. Environmental Progress assumes that because Louisiana has relatively low electric rates, they mistakenly assumes that New Orleans has low rates as well. But again, a significant portion of New Orleans' power comes from Mississippi, not Louisiana. Further, as stated previously, some parts of Louisiana are actually in SPP. So when Louisiana's "low rates" are calculated, those calculations also include low-cost wind power purchases from SPP.

Michael Shellenberger, Environmental Progress' president and signatory to Entergy's attachment D, is quite active on Twitter and has taken a clearly pro-nuclear and anti-renewable stance. Some of his recent comments include:

- "The real purpose of renewables was always to return humankind to low-energy agrarian living."[17]

- "Millennial swing voters grew up in fear of the climate, not the Bomb. They don't have their parents' weird psychological hang-ups."[18]
- "If Republicans simply defend nuclear, they can own the libs — and win swing voters in key states"[19]
- "Nuclear waste has never been a real problem. In fact, it's the best *solution* to the environmental impacts from energy production."[20]

Response to Entergy Attachment F, "High Level Overview of Renewable Technologies"

As Attachment F, Entergy includes a "High Level Overview of Renewable Technologies". For onshore wind energy, Entergy states that technology is "Not realistic, nor cost-effective in Louisiana given current technology and costs – Transmission from windier areas (TX, OK, KS, etc.) is a possible option, but very challenging to manage transmission congestion and related costs/risks." However, Entergy is not a wind energy developer and has not accurately reflected current wind energy resources in any of the company's IRPs across the Entergy footprint. ENO has provided no data, citation nor resource to back its claims against wind energy. Again, ENO is not required to "manage transmission", that's MISO's job. As stated in our original comments, ENO's assumptions for wind and solar are wildly out of touch with reality:

> "ENO's 2018 IRP assumed solar energy resources and wind energy resources would cost $53.39/MWh and $44.82/MWh, respectively, in 2019.[21] The company also assumed battery storage prices of $177/kW-yr in 2019.[22] Those cost assumptions are significantly higher than current market offerings. New research published in the LevelTen Energy PPA Price Index highlights the low-cost nature of both wind energy and solar energy resources available to ENO; those resources are now expected in the $20-$30/MWh range.[23] In North Carolina, competitive procurement of solar energy resources recently led to an average price of $31.24/MWh per proposal.[24] As such, ENO's solar energy and wind energy cost assumptions in the IRP are approximately 50%-60% higher than current market offerings."

SREA's recommendation is to allow all renewable energy resources to bid in to New Orleans' RPS and allow the City Council to judge for themselves the proper mix of renewable energy resources from a wide variety of options.

Improving ENO's Profit Motive

ENO, like many other utilities across the country, are financially incentivized to own generation assets. As such, a reduction in power sales or power generation asset ownership may reduce revenue for ENO. To resolve this mismatch of financial incentives versus purchasing lower-cost power from independent power producers, some states are creating new regulatory structures to incentivize lower operational costs. For example, in Georgia the Georgia Power Company may earn up to 8.5% off the net cost benefit of power purchase agreements compared to avoided cost as an "additional sum". This additional sum is a negotiated figure based on a litigated integrated resource plan.[25] Georgia receives exceptionally

low renewable energy power prices because the state promotes competitive bidding, and those low prices are then passed along to ratepayers.

This concept of an "additional sum" has also been adopted in Arkansas. The Arkansas Public Service Commission approved a solar power purchase agreement for Entergy Arkansas Inc. (EAI) and stated that, "it is reasonable to allow EAI to recover an 'Additional Sum' of 20 percent of the actual annual savings achieved by the Chicot [solar] PPA…"[26] This "additional sum" construct encourages Entergy Arkansas to find the lowest cost renewable energy option in order to maximize the actual savings for ratepayers while also creating a new revenue stream for the company. SREA is in favor of supporting a revenue mechanism that encourages ENO to reduce ratepayer costs while purchasing new, low-cost renewable energy resources.

New Orleans Must Act Now

New Orleans has a unique opportunity to significantly increase renewable energy generation at historically low prices in the very near term. Because New Orleans residents are likely over-paying for energy, every day that goes by is another day that the city and its residents are wasting money. As mentioned in SREA's original comments, federal tax credits for renewable energy are ramping down very soon, amplifying the need to act soon and capture the greatest cost reductions available to New Orleans. With regards to climate change, as stated by the CATF, "every molecule we emit today matters"; stressing the need for New Orleans to act quickly. Between immediately reducing ratepayer costs, securing federal tax credits prior to their disappearance, and a dire need to cut carbon emissions, New Orleans has three very strong reasons to quickly implement a robust RPS. New Orleans should procure a large quantity of renewable energy in the near-term, preferably in the 2022-2023 timeframe.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the within and foregoing Southern Renewable Energy Association's Motion to Intervene upon all parties listed below via electronic service or by hand delivery and addressed as follows:

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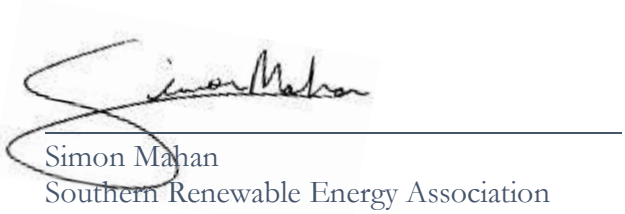
This 15th Day of July 2019.



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[1] Tiffany Stecker (May 8, 2019). "Clean Energy Bill Would Be Neutral on Sources, Sponsors Say," Bloomberg. [https://news.bloombergenvironment.com/environment-and-energy/clean-energy-bill-would-be-neutral-on-power-source-sponsors-say]
[2] Entergy (March 4, 2019). "Utility Reimaged" [https://entergycorporation.gcs-web.com/static-files/c7d865c2-2257-4bb0-b582-4093dd9ea006]
[3] Beau Evans (November 20, 2018). "Sewerage & Water Board power turbine wasn't designed to run in cold weather, officials say," Times-Picayune. [https://www.nola.com/politics/2018/11/sewerage-water-board-power-turbine-wasnt-designed-to-run-in-cold-weather-officials-say.html]
[4] Alex Woodward (September 28, 2018). "It's no 'mutant ninja squirrel,' but Entergy cat to be honored with second line," Gambit. https://www.theadvocate.com/gambit/new_orleans/events/article_1928bfa2-c32c-11e8-8a34-8b4aae5ae22a.html
[5] Air Products. 2019 Sustainability Report. [http://www.airproducts.com/~/media/Files/PDF/company/2019-Sustainability-Report.pdf?la=en]
[6] Entergy (May 1, 2019). 1st Quarter 2019 Earnings Teleconference. [https://entergycorporation.gcs-web.com/static-files/9a47286c-a0d5-4d1f-b2f4-c14eaba18a80]
[7] Entergy New Orleans (June 2019). Entergy New Orleans, LLC (Electric). [https://www.entergy-neworleans.com/userfiles/content/price/bills/enol-electric-bill.pdf]
[8] CPS Energy. Energy Cost Calculator. [https://www.cpsenergy.com/en/my-home/savenow/calculators/energy-cost-calculator.html]
[9] Austin Energy. Residential Electric Rates & Line Items. [https://austinenergy.com/ae/residential/rates/residential-electric-rates-and-line-items]
[10] Kissimee Utility Authority (September 27, 2018). KUA Cuts Electric Rates for Third Straight Month. [https://kua.com/news/kua-cuts-electric-rates-for-third-straight-month/]
[11] Michael Shellenberger (March 11, 2019). "It sounds crazy, but Fukushima, Chernobyl, and Three Mile Island show why nuclear is inherently safe," Forbes. [https://www.forbes.com/sites/michaelshellenberger/2019/03/11/it-sounds-crazy-but-fukushima-chernobyl-and-three-mile-island-show-why-nuclear-is-inherently-safe/#56a3dd921688]
[12] Michael Shellenberger (February 14, 2019). "The real reason they hate nuclear is because it means we don't need renewables," Forbes. [https://www.forbes.com/sites/michaelshellenberger/2019/02/14/the-real-reason-they-hate-nuclear-is-because-it-means-we-dont-need-renewables/#1e949ee8128f]
[13] Environmental Progress (January 22, 2019). Open Letter to Rodrigo R Duterte [http://environmentalprogress.org/big-news/2019/1/22/open-letter-to-president-rodrigo-r-duterte]
[14] Energy Information Administration (June 25, 2019). Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, March 2019 and 2018 (Cents per Kilowatthour) [https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a]
[15] Oklahoma Department of Commerce (2019). Oklahoma Now. [https://stateofsuccess.com/industries/energy/wind/]
[16] Jack Money (April 14, 2019). "Wind sets Southwest Power Pool grid record," The Oklahoman. [https://www.examiner-enterprise.com/business/20190414/wind-sets-southwest-power-pool-grid-record]
[17] https://twitter.com/ShellenbergerMD/status/1139771394948866049
[18] https://twitter.com/ShellenbergerMD/status/1118907765349425154
[19] https://twitter.com/ShellenbergerMD/status/1118901151087259648
[20] https://twitter.com/ShellenbergerMD/status/1111642018717954048
[21] Entergy New Orleans (August 31, 2018). 2018 Triennial Integrated Resource Plan of Entergy New Orleans, LLC. Docket No. UD-17-03. [https://www.entergy-neworleans.com/userfiles/content/IRP/2018-08-31_ENO_IRP_Materials_for_Technical_Meeting_2.pdf]
[22] Entergy New Orleans (August 31, 2018). 2018 Triennial Integrated Resource Plan of Entergy New Orleans, LLC. Docket No. UD-17-03. [https://www.entergy-neworleans.com/userfiles/content/IRP/2018-08-31_ENO_IRP_Materials_for_Technical_Meeting_2.pdf]
[23] LevelTen Energy PPA Price Index (February 2019). [https://cdn2.hubspot.net/hubfs/4108426/LevelTen%20Energy%20Q4%202018%20PPA%20Price%20Index-1.pdf?__hstc=83931014.114c2596c0964977af3ad94e5d3e018f.1555337750750.1555337750750.1555337750750.

1&__hssc=83931014.1.1555506765426&__hsfp=420343025&hsCtaTracking=44f8bec1-e467-4e72-9978-5127eac403ed%7C5ae392b6-f801-45c5-a947-4b48b7dd5510]

[24] Accion Group (April 9, 2019). Competitive Procurement of Renewable Energy Independent Administrator's Report. [https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=d2a72630-6104-4359-96ff-ab6229e7b1e0]

[25] Georgia Public Service Commission Staff and Georgia Power Company (June 6, 2019). Proposed Stipulation in Dockets #42310 and #42311.
[http://www.psc.state.ga.us/factsv2/Document.aspx?documentNumber=177239]

[26] Arkansas Public Service Commission (June 18, 2018). In the matter of the petition of Entergy Arkansas, Inc., for a declatory order regarding a purchase power agreement for a renewable resource, Docket No. 17-041-U Order No. 4.