**DRAFT RESOLUTION**

**NO. R-20-xx**

**CITY HALL: \_\_\_\_\_\_\_, 2020**

**BY: COUNCILMEMBERS MORENO, WILLIAMS, GIARRUSSO, BANKS, GISLESON PALMER, BROSSETT AND NGUYEN**

**RESOLUTION TO CREATE A DOCKET TO PROVIDE FOR COMPETING SIMULATIONS USING ENO's COMPUTERS TO ESTABLISH THE BEST TIME-OF-USE (TOU) RATE FOR NEW ORLEANS’S RATEPAYERS.**

**DOCKET NO. UD-20-xx**

**WHEREAS** pursuant to the Constitution of the State of Louisiana, and the Home Rule Charter of the City of New Orleans, the Council of the City of New Orleans (“Council”) is the governmental body with the power of supervision, regulation, and control over public utilities providing service within the City of New Orleans; and

**WHEREAS** pursuant to its powers of supervision, regulation, and control over public utilities, the Council is responsible for fixing and changing rates and charges of public utilities, and making all necessary rules and regulations to govern applications for the fixing and changing of rates, and charges of public utilities; and

**WHEREAS** Entergy New Orleans, LLC (“ENO”) is a public utility providing electric and natural gas service to all New Orleans; and

**WHEREAS** in 2018, the Council authorized ENO to spend $80 million to install smart meters for all ratepayers by the end of 2020;[[1]](#footnote-1) and

**WHEREAS** the Council intends to mandate a rate design utilizing smart meters that will allow customers to reduce their bills, even while paying for the extra cost of the meters;[[2]](#footnote-2) and

**WHEREAS** advanced metering infrastructure (AMI) allows implementation of TOU rates in which electricity prices vary according to time of day, week, or season of year, to reflect wholesale energy prices and contributions to generation, transmission, and distribution costs; and

**WHEREAS** TOU rates have a decades-long track record around the world of reducing utilities’ peak demand and, thereby, decreasing the need to invest in more generation, transmission, or distribution capacity;[[3]](#footnote-3),[[4]](#footnote-4) and

**WHEREAS** properly definedTOU rates can decrease kWh use because they can decrease the payback time for some energy-efficiency retrofits;[[5]](#footnote-5),[[6]](#footnote-6) and

**WHEREAS** a full evidentiary record for a TOU rate was introduced in ENO dockets;[[7]](#footnote-7),[[8]](#footnote-8) and

**WHEREAS** it is the intention of this Council that, before the end of 2021, a TOU rate will be formally adopted by ENO to allow all ENO's customers to Opt-In;[[9]](#footnote-9) and

**WHEREAS** an appropriate TOU rate allows electricity consumers to apply large, predictable, cost-effective, and money-saving strategies, which benefit everyone and encourages consumers to purchase electricity at less expensive times, and invest in energy efficiency and the full range of distributed energy resources (DERs), in an orchestrated way;[[10]](#footnote-10) and

**WHEREAS** dangerous indoor air quality, resulting from mold[[11]](#footnote-11), carbon monoxide[[12]](#footnote-12) and Covid19-like pathogens,[[13]](#footnote-13) can be ameliorated with energy-efficient HVAC and appliance upgrades, including electric heat pumps,[[14]](#footnote-14) heat-recovery ventilation,[[15]](#footnote-15) and induction cooking; and

**WHEREAS** TOU rates come in roughly four categories and combinations thereof: simple TOU is the most common, but there are also Real-Time Pricing (RTP), Variable Peak Pricing (VPP), Critical Peak Pricing (CPP), and Critical Peak Rebates (CPR);[[16]](#footnote-16),[[17]](#footnote-17) and

**Simulating Optimal Performance and Acceptance of TOU Rates.**

**WHEREAS** both performance and acceptance are important to the success of a novel rate; and

**WHEREAS** simulating implementing TOU rates was “developed to quantify the impact of TOU and dynamic pricing in California’s 2003–2004 statewide pricing pilot, can perform a bill-impact analysis that allows for a certain amount of demand response;” [[18]](#footnote-18), [[19]](#footnote-19) and

**WHEREAS** TOU rates can be implemented without or with, supporting technology**;** and

**WHEREAS** an interim analysis, issued after the first year of three simultaneous two-year pilots of a simple TOU rate near Baltimore MD, reported a roughly 12% drop in peak demand (kW) and a 4% drop in purchases (kWh), and these effects were largely independent of customer income, and only supported by education about price changes, i.e., did not include any supporting technologies; however, fewer than 2% of customers opted in. Nevertheless, participating customers enjoyed bill savings of 5% to 10%;[[20]](#footnote-20) and

**WHEREAS** predictable performance and acceptance of TOU rates are likely enhanced via the addition and application of control technology (e.g., appliance timers; smart plugs, thermostats, and circuit breakers; home energy management systems or aggregators);[[21]](#footnote-21),[[22]](#footnote-22),[[23]](#footnote-23),[[24]](#footnote-24) and

**WHEREAS** setting programmable equipment to automatically buy and sell electricity at the same time each day, without regard to season, can produce substantial bill savings;[[25]](#footnote-25) and

**WHEREAS** a large market-share, Opt-Out, RTP program persists in Spain;[[26]](#footnote-26) and

**WHEREAS** RTP has the highest risk but also the best performance;[[27]](#footnote-27) and

**WHEREAS** a building or home that has adequate technology to be substantially-to-fully off-grid reliant will enjoy lower operating costs, more reliability, and a smaller carbon footprint if connected to a grid that allows shared resources;[[28]](#footnote-28) and

**WHEREAS** simulating TOU success depends on assuming the correct elasticity of demand under a range of assumptions, and this data is published;[[29]](#footnote-29) and

**WHEREAS** shadow billing, coupled with alternative end-use simulations, assists customers in understanding and accepting time-varying rates, control equipment and efficiency investments;[[30]](#footnote-30),[[31]](#footnote-31) and

**WHEREAS** the following objectives represent the major benefits of various potential TOU rates:

**METRICS of SUCCESS**

1. Reduce peak demand;
2. Reduce total end-use kWh consumed;
3. Reduce participants’ electric bills;
4. Increase customer participation;
5. Reduce ENO’s revenue requirements by reducing kWh consumed, the average cost of energy and future generation, transmission, and distribution, capacity additions;
6. Reduce total resource cost[[32]](#footnote-32);
7. Reduce emissions of greenhouse gases and other air pollutants;
8. Incentivize energy efficiency investments, especially those that reduce usage during peak hours;
9. Reduce cost-shifting between customers;
10. Improve the reliability of electric power delivery to the meter and/or within buildings;
11. Promote behind-the-meter DERs, including non-electric energy storage;
12. Support community solar;
13. Facilitate integration of renewable energy; and
14. Facilitate investments that improve indoor air quality;

**NOW THEREFORE**

**BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NEW ORLEANS THAT:**

1. The Council establishes Docket No. UD-xx-01 (“Time of Use Docket”), to consider revising ENO’s current reporting requirements, as listed in Exhibit A to the Council; and
2. **BE IT ALSO RESOLVED (BIAR)** that the Council will retain a third-party, independent evaluation consultant, without any existing or prior financial relationship to ENO, to conduct simultaneous simulations, to compare TOU rate designs, and to identify the best set of rate designs, and facilitate their prompt implementation for all ENO customers, starting by the end of 2021; and
3. **BIAR** thatthe independent evaluation consultant may use ENO’s data and computers, and shall review and use, if appropriate, software made available by any party; and
4. **BIAR** that ENO shall, in consultation with the independent evaluation consultant, make available to customers on-line shadow billing and analytical tools, in order to allow them to assess the effect on their bills of the proposed rate designs, load-shifting, and alternative technologies; and
5. **BIAR** that ENO may apply to recover through rates all reasonable costs of this docket; those costs include modeling, calculation, and simulation of each TOU rate design accepted for the docket, and will also include both the manipulation of existing software, and the development of any new software; and
6. **BIAR** that any party to the docket may propose a candidate TOU rate design for evaluation via simulation by the independent consultant; and
7. **BIAR** that a candidate TOU rate must be well-defined through provided documentation, or via a clear description found in some accessible source, e.g., documents prepared by a utility regulator, consultant, or advocate to a docket, which
	1. provides instruction on the production and use of needed computer code to:
		1. calculate the utility bill for all customers;
		2. simulate the bill only using MISO (Midcontinent Independent System Operator) prices, weather conditions, and existing and changeable site conditions, within and outside of the building, including but not limited to general or detailed descriptions of buildings; and
	2. establishes how customers’ responses to price changes will be predicted, i.e., by
		1. price signals alone (via any publication of price change trends one day in advance, announcements of high prices, and other means to educate consumers);
		2. third-party aggregators who would provide remote control of many key appliances;
		3. smart thermostats, plugs and/or circuit breakers that automatically disconnect services when electronic signals provide warning of high prices;
		4. automation equipment that can be programed to be responsive to TOU prices and homeowner needs; and
		5. contracts or covenants with each customer, where each appliance is set to operate on the same load schedule every day of the year, and reset once a year.
8. **BIAR** that at least the top five metrics within the “Metrics of Success” should be evaluated, and contribute to the final report of this docket; and that the hourly data collected from MISO must include both the Locational Marginal Price (LMP) at the New Orleans node, and the MISO system’s marginal fuel mix supply; and
9. **BIAR** that the independent evaluation consultant will determine which TOU rate designs are most likely to reduce ENO’s total system cost by more than the incremental cost of installing and operating the smart meters; and
10. **BIAR** that the goal of the docket is to establish two TOU rate designs; and
11. **BIAR** that The Honorable Marie Auzenne (marie@auzennelaw.com) is hereby appointed as Hearing Officer in this docket and shall, for good cause shown, and as required by the circumstances of this proceeding, have the authority to change or amend the procedural dates set forth herein; and
12. **BIAR** that ENO and the Council’s Advisors are designated as parties to this proceeding; and
13. **BIAR** that the Council adopts the following procedural schedule:
14. Interested parties shall intervene in the docket within 15 days of the adoption of this Resolution by the Council.Persons desiring to intervene shall do so by filing a Motion to Intervene with the Clerk of Council and paying the applicable filing fee, unless such fee is waived pursuant to Council Resolution No. R-16-365, with a copy submitted to the Chief of the Council Utilities Regulatory Office, Room 6E07 City Hall, 1300 Perdido Street, New Orleans, LA 70112.The Council’s requirements for motions to intervene may be found in the City Code (which is available on the Council’s website) at sections 158-236, 158-240, 158-240, 158-286, 158-287, 158-322, and 158-324.Objections to intervention requests shall be filed within five days of such requests.Timely-filed intervention requests, not objected to within that time period, shall be deemed GRANTED.
15. Submission of proposed competing TOU rates and supporting documentation is due 25 days following the adoption of this Resolution by the Council.
16. Comments from all parties, including the Council Advisors, regarding this Docket shall be filed no later than \_\_\_\_ 2020.
17. Reply comments shall be filed no later than \_\_\_ 2020.
18. A Recommendation Memorandum from the Council Utilities Regulatory Office (CURO) shall be filed no later than \_\_\_\_\_, 2020.
19. Comments regarding the Recommendation Memorandum shall be filed no later than \_ 2020.

**THE FOREGOING RESOLUTION WAS READ IN FULL; THE ROLL WAS CALLED ON THE ADOPTION THEREOF, AND RESULTED AS FOLLOWS:**

**YEAS:**

**NAYS:**

**ABSENT:**

**AND THE RESOLUTION WAS ADOPTED.**

1. Reference needed. [↑](#footnote-ref-1)
2. Reference needed. [↑](#footnote-ref-2)
3. https://www.raponline.org/wp-content/uploads/2016/05/rap-faruquihledikpalmer-timevaryingdynamicratedesign-2012-jul-23.pdf [↑](#footnote-ref-3)
4. In 2018,the Council obligated ratepayers to spend $200 million to build a peaking plant. [↑](#footnote-ref-4)
5. https://www.aceee.org/sites/default/files/publications/researchreports/u1703.pdf [↑](#footnote-ref-5)
6. https://www.youtube.com/watch?v=ZVP9-seXZWg&feature=youtu.be [↑](#footnote-ref-6)
7. The Customer Lowered Electricity Price (CLEP) TOU rate was introduced by Building Science Innovators (BSI) in 2016 within the 2015 ENO Integrated Resource Planning (IRP) docket and again in the 2018 ENO Rate Case. [↑](#footnote-ref-7)
8. https://www.buildingscienceinnovators.com/align-by-design.html [↑](#footnote-ref-8)
9. reference needed [↑](#footnote-ref-9)
10. https://www.youtube.com/watch?v=ZVP9-seXZWg&feature=youtu.be [↑](#footnote-ref-10)
11. <https://www.sgrlaw.com/ttl-articles/592>, ***The Art of Toxic Mold Litigation*** [↑](#footnote-ref-11)
12. https://www.nsc.org/home-safety/safety-topics/other-poisons/carbon-monoxide [↑](#footnote-ref-12)
13. www.theguardian.com/world/2020/nov/02/ventilation-and-masks-are-key-to-curbing-covid [↑](#footnote-ref-13)
14. https://www.trane.com/residential/en/resources/heat-pump-vs-furnace-what-heating-system-is-right-for-you/ [↑](#footnote-ref-14)
15. https://thermastor.com/our-brands/therma-stor/heat-recovery-systems/ [↑](#footnote-ref-15)
16. https://www.smartgrid.gov/recovery\_act/time\_based\_rate\_programs.html [↑](#footnote-ref-16)
17. https://magazine.ieee-pes.org/wp-content/uploads/sites/50/2020/05/PE\_MayJun\_Faruqui.pdf [↑](#footnote-ref-17)
18. IBID. [↑](#footnote-ref-18)
19. Brattle Group studied 420 examples and recommended Simultaneous Simulations for ENO. [↑](#footnote-ref-19)
20. ***New Evidence on Customer Price Responsiveness,*** Sanem Sergici, Brattle Group, 21Oct 2020 is available on request from the author. [↑](#footnote-ref-20)
21. https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/solving-the-rate-puzzle-the-future-of-electricity-rate-design [↑](#footnote-ref-21)
22. https://www.hindawi.com/journals/mpe/2015/603747/ [↑](#footnote-ref-22)
23. [↑](#footnote-ref-23)
24. ***Experiencing the CLEP\_Dashboard***, https://www.buildingscienceinnovators.com/uploads/1/0/6/2/106256229/exhibit4-experiencingtheclep-dashboard-v3.pdf https://magazine.ieee-pes.org/wp-content/uploads/sites/50/2020/05/PE\_MayJun\_Faruqui.pdf [↑](#footnote-ref-24)
25. [↑](#footnote-ref-25)
26. [↑](#footnote-ref-26)
27. [↑](#footnote-ref-27)
28. https://www.youtube.com/watch?v=ZVP9-seXZWg&feature=youtu.be https://epic.uchicago.edu/events/event/real-time-pricing-in-the-spanish-electricity-market/ https://magazine.ieee-pes.org/wp-content/uploads/sites/50/2020/05/PE\_MayJun\_Faruqui.pdf “While carbon zero or carbon neutral homes are highly desirable sustainable design outcomes, the new holy grail is a carbon positive home. Bill McCorkell, director of [ArchiBlox](https://www.archiblox.com.au/), the prefab modular house company that Glenn and Karen engaged to build their new home, says carbon positive “basically means creating more energy than the house requires so you can feed it back into the grid.” https://www.theguardian.com/future-energy-skills-know-your-battery/2019/sep/26/off-grid-with-energy-to-share-in-pursuit-of-the-carbon-positive-home [↑](#footnote-ref-28)
29. https://magazine.ieee-pes.org/wp-content/uploads/sites/50/2020/05/PE\_MayJun\_Faruqui.pdf [↑](#footnote-ref-29)
30. <https://www.raponline.org/blog/utility-shadow-billing-can-shed-light-on-rate-options/> [↑](#footnote-ref-30)
31. ***Experiencing the CLEP\_Dashboard***, https://www.buildingscienceinnovators.com/uploads/1/0/6/2/106256229/exhibit4-experiencingtheclep-dashboard-v3.pdf [↑](#footnote-ref-31)
32. http://www.apscservices.info/EEInfo/CA\_stndrd\_Prac\_Man.pdf [↑](#footnote-ref-32)