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July 26, 2019

**BY HAND DELIVERY**

Ms. Lora W. Johnson  
Clerk of Council  
Council of the City of New Orleans  
City Hall, Room IE09  
1300 Perdido Street  
New Orleans, LA 70112

In Re: *Application of ENO for a Change in Electric and Gas Rates Pursuant to Council Resolutions R-15-194 and R-17-504 and for Related Relief*, CNO Docket UD-18-07

Dear Ms. Johnson:

Enclosed please find an original and three (3) copies of the *Post-Hearing Brief of Building Science Innovators* in the above referenced docket, which we request be filed into the record along with this letter in accordance with your normal procedure.

Sincerely,



Michael W. Tift

cc: Official Service List, City Council Docket UD 18-07

**BEFORE THE  
COUNCIL OF THE CITY OF NEW ORLEANS**

**IN RE: REVISED APPLICATION OF )  
ENO NEW ORLEANS, LLC FOR A )  
CHANGE IN ELECTRIC AND GAS )  
RATES PURSUANT TO COUNCIL ) DOCKET NO. UD-18-07  
RESOLUTIONS R-15-194 AND R-17- )  
504 AND FOR RELATED RELIEF )  
)**

**BUILDING SCIENCE INNOVATORS, LLC  
POST HEARING BRIEF**

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**BUILDING SCIENCE INNOVATORS, LLC  
POST HEARING BRIEF**

Building Science Innovators (BSI) submits this post hearing brief to the  
New Orleans City Council (Council) in the captioned proceeding.

## INTRODUCTION<sup>1</sup>

BSI proposes Council adoption of Customer Lowered Electricity Price (CLEP) rates and tariffs across all customer classes and all ratepayers. CLEP is an innovative smart rate design. CLEP is the most progressive way to lower the price of electricity for all customers while simultaneously increasing utility profits—using only non-subsidized, normal market forces. By charging and paying ratepayers at no more, nor no less, than the actual costs borne by the utility at 5-minute temporal resolution, CLEP fosters strategically timed use of dishwashers, water heaters, air-conditioners, and whole-home batteries, and provides subsidy-free community solar. CLEP enhances utility profits, simultaneously saves customers significant money and produces much less CO<sub>2</sub>. CLEP fully finances energy storage and often doubles cash flows for traditional energy efficiency and renewable energy investments—revolutionizing how we buy and sell electricity while decreasing reliance on fossil fuels.

As fully explained and supported in Myron B Katz’s Direct Testimony filed February 1, 2019 and [Table 1 within argument 7](#) below, the

### **Principal benefits of CLEP include:**

- Entergy New Orleans (ENO) would pay customers for buying electricity when the Midcontinent Independent System Operator (MISO) wholesale price is low.
- ENO would buy from customers when the wholesale price is high.
- ENO would reward customers for avoiding demand when delivery costs are highest ([at the same annual rate commercial customers are currently charged for demand](#)).

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<sup>1</sup> Although this document *CAN* be understood after it is printed, the reader is advised instead to read and understand it at a computer—in order to avail himself of hyperlinks at all underlined texts placed there to facilitate easy jumps to more complete and relevant explanations elsewhere in the document. “CTRL” Click here or within the Table of Contents to jump.

- CLEP enables ENO’s customers to far more easily own distributed energy resources (DER) including 1) thermal and electric storage, 2) local and remote renewable energy generation, 3) microgrids, i.e., the ability to operate both autonomously and grid-connected, and 4) electric vehicles.
- CLEP finances retrofits, such as ice-making air conditioners, which shifts the largest part of our homes’ demand to nighttime—mitigating the greatest cause of global warming.
- CLEP provides strong financial support for alternative “green” energy sources such as wind, rooftop solar, and the especially helpful, community solar—which provides locally, ten times the access to solar power compared to rooftop, while CLEP pays 10% higher than retail.
- CLEP is funded by decreasing ENO’s roughly \$300 million a year, pass-through “cost-of-energy.”
- CLEP pays customers to [extinguish energy-cost-shifting and demand-cost-shifting onto each other](#).
- CLEP is an advanced form of time-of-use (TOU) rates which have been shown in numerous examples around the world and for many decades to [rapidly decrease peak demand at negative cost](#). It is anticipated that by reducing peak demands, consideration of future purchases of peaking plants may no longer be required.
- CLEP does what Integrated Resource Planning cannot, more rapidly, at less cost, and more reliably.
- CLEP enhances customers’ electricity reliability at negative cost.
- All these benefits come with minimal regulatory burden and litigation expense.

All are supported in MBK’s Direct Testimony filed February 1, 2019 and [Table 1 within Point 7](#).

## DISCUSSION

### Point 1: CLEP Advances Council-Mandated Goals.

This discussion as well as that found in [Point 9](#), presents the Council's key resolutions that:

- compile many of the Council's goals,
- inform the Council that while some of the goals have been advanced, many of their most important goals are not being met,
- the current rate case may be the best opportunity to advance those goals, and
- CLEP is the best tool to do this.

The following paragraphs cite Council resolutions and one FERC ruling that either:

- have not been initiated but can be implemented through CLEP,
- were attempted with limited success but can attain good-to-excellent success with CLEP, or
- inspired CLEP's creation and gave it shape and form.

CLEP applies to a substantial body of the Council's resolatory goals. In fact, these goals, the problems encountered in the many attempts to reach them and other actions by the Council were the catalyst for CLEP's conception and subsequent design.

Resolution **R-07-600** (passed December 6, 2007) entitled **RESOLUTION ASSERTING THE COMMITMENT OF THE COUNCIL OF THE CITY OF NEW ORLEANS TO ENERGY EFFICIENCY AND THE DEVELOPMENT OF A VIABLE ENERGY EFFICIENCY PROGRAM**, on page 4 resolves that, **"the Council, through the Utility Committee, [will] align**

**customer pricing and incentives to encourage investment in energy efficiency**”—simply stated: *Use rate design to promote energy efficiency (EE)*<sup>2</sup>. *Regrettably this never occurred.* Why this single clause was overlooked is unknown, but the rest of the clauses within R-07-600 were all eventually used for one purpose: to inaugurate **Integrated Resource Planning (IRP)**.<sup>3</sup> Because an IRP’s goal is to balance investments on both sides of the meter to match customers’ coincident demand to the utility’s ability to reliably supply power, IRP’s are all about power and not at all about energy or energy efficiency. Thus, IRP’s cannot directly promote energy efficiency, nor can they generate the parameters needed to describe the scope of an EE program. Nevertheless, our IRPs were designed to spin-off **demand side management (DSM)**<sup>4</sup> programs that exclusively focus on promoting EE. Thus, it was no accident that the 2015 IRP failed<sup>5</sup> and inspired CLEP’s innovation.<sup>6</sup>

CLEP recognized the goals of R-7-600 and the fundamental error in the approach used to reach that nascent goal. Because EE is almost universally measured in kWh saved, but never in the amount of CO<sub>2</sub> avoided, even if IRPs had been focused on EE, IRPs could not advance the Council’s later stated, coincident goals of sustainability and reduced CO<sub>2</sub> production, but CLEP can. See [Table 1](#).

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<sup>2</sup> **Efficient energy use**, sometimes simply called **energy efficiency**, is the goal to reduce the amount of energy required to provide products and services. [https://en.wikipedia.org/wiki/Efficient\\_energy\\_use](https://en.wikipedia.org/wiki/Efficient_energy_use) .. However, the standard and by far most common way to measure energy efficiency for most appliances and homes is in units of energy service delivered divided by kWhs consumed.

<sup>3</sup> <https://blog.aee.net/understanding-irps-how-utilities-plan-for-the-future> “An IRP is a roadmap to meet forecasted energy demand using both supply and demand side resources to ensure reliable service to customers in the most cost-effective way.”

<sup>4</sup> [https://openei.org/wiki/Definition:Demand\\_Side\\_Management](https://openei.org/wiki/Definition:Demand_Side_Management)

<sup>5</sup> **R-17-30**, 1/26/2017, was a requiem for the failure of the 2015 IRP. Page 1.

<sup>6</sup> MBK Direct Testimony, page 5, lines 13 -14 and page 10, lines 2 – 15.



CLEP was conceived from the realizations that:

- demand reduction is cheaper, faster, more effective and less litigious with TOU rates than IRPs,<sup>7</sup>
- the carbon content per kWh varies greatly every day,<sup>8</sup>
- carbon content is highly correlated with wholesale price,<sup>9</sup> and
- these price variations will increase as more renewable energy penetrates the US grid.<sup>10</sup>

Therefore, CLEP is not focused upon EE (kWhs avoided), but instead on Demand Response (DR)<sup>11</sup>—i.e., buying electricity when demand is lowest, wholesale prices are lowest, and generation is most carbon free, and encouraging customers to be able to provide it back to themselves or to the grid via solar, wind, or batteries when demand is highest and grid sources are most carbon intensive.

CLEP is a key inspiration that not only addresses goals of **R-7-600** to promote EE with rate design and investments on both sides of the meter to match the customer’s coincident demand with the utility’s ability to reliably supply power but CLEP also addresses clauses in other resolutions and the FERC cost-causation principle, including the need to provide a fair playing field for solar and other renewable-energy generation sources. CLEP answers all these challenges, and is the only proposal so far that does, as the clauses just cited within R-07-600 requires, helps to satisfy all these requirements and goals by simply altering the rate design to align pricing. CLEP provides the Council an opportunity to satisfy this and many other long-standing resolutions and other challenges faced by the Council, some of which are cited below.

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<sup>7</sup> MBK Direct Testimony, page 26.

<sup>8</sup> MBK Direct Testimony, p 11, lines 11 - 15. <https://www.MISOenergy.org/markets-and-operations/real-time-displays/>

<sup>9</sup> IBID.

<sup>10</sup> IBID.

<sup>11</sup> “Demand response provides an opportunity for consumers to play a significant role in the operation of the electric grid by reducing or shifting their electricity usage during peak periods in response to time-based rates or other forms of financial incentives.” <https://www.energy.gov/oe/activities/technology-development/grid-modernization-and-smart-grid/demand-response>

## R-07-600

Resolution R-07-600 contains at least 14 “be it further resolved” clauses, 10 are covered here:

From Council resolution R-07-600, Page 3:

- **identify cost-effective energy efficiency potential in conjunction with its ratemaking authority and responsibility;**

CLEP helps customers lower their carbon footprints and electricity bills cost effectively—as well as and even beyond what the Council anticipated in 2007.

- **develop processes to align incentives equally for efficiency and supply resources;**

CLEP is the only mechanism proposed to date that incentivizes ratepayer investments in EE, renewable energy, energy storage, and electric vehicles while simultaneously helping address both supply and instantaneous demand issues.

- **establish cost effectiveness tests;**

CLEP passes the Total Resource Cost (TRC) and Ratepayer Impact Measure (RIM) tests.<sup>12</sup>

- **set energy savings goals consistent with the cost-effective potential;**

CLEP enables the Council to have the information to be able to set goals on a customer-class basis, and economically encourage ratepayers to meet said goals. This is done by varying the “p” and “q” in the definitions of [CLEP5](#) and [CLEPm](#).<sup>13</sup>

- **establish effective energy efficiency delivery mechanisms designed to maximize the use of cost-effective demand-side measures by residents and businesses in New Orleans;**

CLEP is the only mechanism yet proposed to properly incentivize demand-side measures to reduce demand during the utility’s peak hours. The failure of previous mechanisms is clearly illustrated by

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<sup>12</sup> R-17-30, page 4.

<sup>13</sup> “p” and “q” are extra controls to allow the utility regulator to ensure that goals are met.” MBK Direct Testimony, page 21.

the recent decision to spend over \$200M specifically to address demand. With CLEP, that expenditure is likely unnecessary.

**R-07-600**, Page 4:

- **modify policies to align utility incentives with the delivery of cost-effective energy efficiency and modify, as appropriate, Council ratemaking practices to promote energy efficiency investments;**

CLEP is the only rate design proposal that truly aligns utility incentives with energy efficiency goals. Without CLEP, there is a profit-motivated disincentive, whereas with CLEP, it is overcome while also addressing current problems facing the utility, including current struggles to meet demand.

- **develop regulatory policies to ensure robust energy efficiency practices;**

which do not require rebates or carbon taxes which impose subsidies onto others and are more challenging to administer—there is nothing else available in the US market that comes close to CLEP in encouraging robust energy-saving practices.

- **integrate energy efficiency into energy resource plans at the utility and regulatory level;**

CLEP addresses energy efficiency and resources (demand and supply) from both the customer and the utility perspective without the need to develop dubiously accurate IRP resource plans.

- **through the Utility provide sufficient, timely, and stable program funding to deliver energy efficiency where cost-effective;**

as a rate design implemented through the utility, CLEP provides stable funding directly to ratepayers when they make effective electricity-bill-lowering investments. If their investments are modest, they will see modest returns, and if substantial, they will see substantial returns. No other proposal is as cost-effective as CLEP, especially since CLEP is not paid from city coffers or utility costs or profits but by reducing the roughly \$300 million/year pass-through cost-of-energy that ENO is prohibited

from receiving any profit on. Because CLEP accomplishes these goals without the need to create or maintain a Demand Side Management (DSM) program, this reduces the need to provide “stable program funding” because there is less need for such programs.

- **broadly communicate the benefits of and opportunities for energy efficiency;**

CLEP implementation must come with a webpage administered by ENO that helps the prospective CLEP customer know in advance the benefits of CLEP under various alternative choices.<sup>14</sup>

### **R-16-103**

Council resolution **R-16-103**<sup>15</sup> directs ENO to “decouple” the utility’s receipt of “cost-of-service” from the actual number of kWh sold, in order to ensure that the utility does not have an incentive to discourage customers from reducing kWh consumption. Notably, CLEP has these costs decoupled by design. CLEP does this in two ways:

- Since a CLEP customer continues to be required to pay his/her normal ENO bill for all kWh’s consumed,<sup>16</sup> CLEP causes no decrease in cost-of-service payments.
- Because, CLEP is not rolled out as part of a DSM program, any and all steps taken by retail customers can be done without DSM’s administration, oversight, or through incentive rebates and thus does not require Council review and reconciliation.

### **R-17-30**

Resolution **R-17-30**, on page 40, asserts that the Council is disappointed that more DR programs weren’t included in the analysis performed by ENO in its application to deploy AMI<sup>17</sup> in

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<sup>14</sup> Page 16 of Dr. Katz’ Direct Testimony, ‘a virtual CLEP bill before choosing CLEP,’ to any customer requesting such an analysis.

<sup>15</sup> R-16-103, 4/7/2016, page 2.

<sup>16</sup> MBK’s Direct Testimony, Page 14, lines 17 through 20

<sup>17</sup> [https://www.energy.gov/sites/prod/files/2016/12/f34/AMI%20Summary%20Report\\_09-26-16.pdf](https://www.energy.gov/sites/prod/files/2016/12/f34/AMI%20Summary%20Report_09-26-16.pdf) “Advanced metering infrastructure (AMI) is an integrated system of smart meters, communications networks, and data management systems that enables two-way communication between utilities and customers”

New Orleans, and asserts that more should be analyzed in future IRP cycles. As explained on page 26 of MBK’s Direct Testimony, CLEP is exceptionally good at reducing peak demand via DR.

### **R-17-427**

Resolution **R-17-427**,<sup>18</sup> page 1, notes a letter from Councilmember Jared Brossett to ENO voicing concerns over on-going customer complaints related to electric power interruptions and asking for information on both frequency and duration from ENO. Page 4 notes that other state utility regulatory commissions have established financial penalties for failures to meet reliability performance standards. **It should be noted that reliability need not only be provided on the utility side of meter; it is easier, cheaper and better if provided on the customer side**,<sup>19</sup> and CLEP helps enable this by providing the only rate-design that fully finances consumer purchases of batteries on their side of the meter.<sup>20</sup> This was substantiated in BSI’s Direct Testimony: "This shortcoming in fair electricity rates suppresses the ability for a building owner to take full responsibility for electricity reliability and thereby, accomplishes this feat better and far more cheaply than can be provided by the utility."<sup>21</sup>

### **R-18-97**

Resolution **R-18-97**<sup>22</sup> directs ENO to include as part of its 2018 Combined Rate Case filing a “green pricing”<sup>23</sup> proposal under which customers may voluntarily choose to have some or all their

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<sup>18</sup> **R-17-427**, June 8, 2017.

<sup>19</sup> Fitzgerald, Garrett, James Mandel, Jesse Morris, and Hervé Touati. *The Economics of Battery Energy Storage: How multi-use, customer-sited batteries deliver the most services and value to customers and the grid*. Rocky Mountain Institute, September 2015. [http://www.rmi.org/electricity\\_battery\\_value](http://www.rmi.org/electricity_battery_value)

<sup>20</sup> MBK Direct Testimony pages 32 – 33.

<sup>21</sup> MBK Direct Testimony page 25.

<sup>22</sup> **R-18-434**, page 2.

<sup>23</sup> **Green pricing** is an option offered by electric utilities that allows customers to support investments in renewable energy technologies. Through green pricing, participating customers pay a premium on their electric bill to cover the extra cost of the renewable energy. <https://resource-solutions.org/wp->

electricity supplied by renewables. Notably, CLEP far more cost-effectively facilitates the true goal of this resolution and would direct ENO to help finance most renewable energy opportunities while lowering electricity prices—unlike the presumption of [Green Pricing](#) which does much the opposite: CLEP accommodates community solar (CS)<sup>24</sup>, while lowering all ratepayers price of electricity, ensuring ENO profits while ensuring maximal encouragement to consumers and CS providers to build their own solar installations. Energy from remotely sited “wind farms”, even as far away as Iowa, are easily incorporated into customers’ consumption profiles by CLEP and thus their electricity bills, simply because that energy is often sold at a negative 1 cent/kwh at night. On the other hand, Green Pricing usually means both: paying a premium for electricity and accessing energy from renewable energy powered generators that are often neither locally sited nor even directly connected to ENO’s wholesale market, MISO.

### **R-18-37 and R-18-99**

Multiple resolutions speak to AMI<sup>25</sup> (Advanced Metering Infrastructure with Smart Meters) and, notably **R-18-99**<sup>26</sup> encourages acceleration of AMI rollout to sooner than the previously authorized, 2021 timeline. It’s worth noting that BSI’s Direct Testimony (pages 25 and 26) cites a major economic benefit of AMI is its ability to allow progressive TOU rates that cause peak demand

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[content/.../PRP.Green\\_Pricing.Report.10.29.02.pdf](#). However, with CLEP, ENO customers will not have to pay a premium for “green” energy, because it is almost always the cheapest electricity sold every day.

<sup>24</sup> Community solar refers to local solar facilities shared by multiple community subscribers who receive credit on their electricity bills for their share of the power produced. This model for solar is being rapidly adopted nationwide.

<https://www.seia.org/initiatives/community-solar>

<sup>25</sup> [https://www.energy.gov/sites/prod/files/2016/12/f34/AMI%20Summary%20Report\\_09-26-16.pdf](https://www.energy.gov/sites/prod/files/2016/12/f34/AMI%20Summary%20Report_09-26-16.pdf) *Advanced metering infrastructure (AMI) is an integrated system of smart meters, communications networks, and data management systems that enables two-way communication between utilities and customers.*

<sup>26</sup> “On October 18, 2016, ENO filed its [first] Application of Entergy New Orleans, Inc. for Approval to Deploy Advanced Metering Infrastructure...” This quote comes from **R-18-37** and **R-18-99**.

to drop. And yet these rates are unavailable to ENO consumers and none but CLEP has been proposed in this Rate Case. If such rates were available to ratepayers, then the ratepayers would make economic choices that substantially lower utility peak demand, increase electricity-reliability, decrease the cost-of-service and make these choices and, if financed by CLEP, make these investments at a profit or savings to them as measured in Internal Rate of Return (IRR).<sup>27</sup> The graph on page 26 of the Direct Testimony implicitly states that even “Old School” TOU rates minimally lower peak demand by at least 14%. One of the reasons that TOU rates only reduced peak demand by 14% was that the incentives provided by any of the choices found on pages 26 were all much lower than those mandated by cost-causation. Only CLEP provides true compliance with cost-causation and thereby can fully finance adequate retrofits to permanently reduce demand during peak hours instead of only during a temporary or intermittent price spike.

### **R-18-434 & FERC’s 1992 ruling on cost-causation**

In **R-18-434**,<sup>28</sup> (page 2) it is revealed that ENO’s proposed Initial Filing for the 2018 Combined Rate Case would have saved ratepayers about \$20,000,000 per year and hit Algiers residents with a 20% rate increase. ENO decided to refile its application to prevent the rate increase for West Bank residents. In so doing, ENO further distorted cross-subsidies between rate classes. FERC’s 1992 ruling

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<sup>27</sup> *The internal rate of return (IRR) is a metric used in capital budgeting to estimate the profitability of potential investments. The internal rate of return is a discount rate that makes the net present value (NPV) of all cash flows from a particular project equal to zero.* <https://www.investopedia.com/terms/i/irr.asp>.

<sup>28</sup> July 31, 2018, ENO filed its initial Application of Entergy New Orleans, LLC for a Change in Electric and Gas Rates Pursuant to Council Resolutions **R-15-194** and **R-17-504** and For Related Relief ("Initial Rate Filing").

on cost-causation<sup>29</sup> and the court's interpretation<sup>30</sup> pose legal, ethical<sup>31</sup>, EE<sup>32</sup>, and cost-saving<sup>33</sup> problems for ENO because of its current and historic as well as its proposed distorted distribution of costs among customer classes. However, we think a better way is to decrease and eventually phase out all these cross-subsidies by simultaneously inaugurating CLEP. BSI proposes a solution for that which is well explained in the [second section of Point 2.](#)

BSI addresses all the following questions, which some people may ask:

- **What are the Council's directly mandated goals that CLEP helps NOLA reach?**
- **What parts of the evidentiary record, resolatory goals by the Council and FERC mandated cost-causation principles are supported by CLEP?**
- **How can CLEP achieve the goals of these Council resolutions and FERC's cost-causation principles?**

In short, CLEP addresses a great many goals, desires, and requirements already stated by the Council, addresses several regulatory requirements, and, in fact, the Council deserves credit for inspiring CLEP's creation and design through its assertions of these goals and desires. CLEP is, in part, a creation of the Council because it inspired its creation.

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<sup>29</sup> Under cost causation, "*all approved rates [must] reflect to some degree the costs actually caused by the customer who must pay them.*" *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992), page 3.

<sup>30</sup> Courts "*evaluate compliance [with cost causation principles] by comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party*" (emphasis added). *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368 (D.C. Cir. 2004), page 3.

<sup>31</sup> Brubaker Direct Testimony, page 12.

<sup>32</sup> *IBID*, page 13.

<sup>33</sup> *IBID*, page 14.



**R-09-136, R-11-52, R-13-271, R-13-363, R-14-122, R-14-509, R-15-140, R-15-499, R-15-140 & R-17-31**

Demand Side Management should reach the Council Resolutions mandated, 2% decline in kWh consumption annually, but ENO's own DSM consultant, Navigant, says it will not.<sup>34</sup> BSI asserts that if Navigant believes that Energy Smart (ENO's DSM program) cannot meet its 2% goal, perhaps it is largely because the means toward that goal is fundamentally undermined by: a) ENO's rates do not especially promote EE, b) ENO's rates undermine EE by declining block rates, higher than \$5/month connection charges, and cross-subsidies onto non-residential customers a substantial part of the cost-of-service that should be allocated onto residents, and c) even if ENO's rates had none of these short-comings, by comparison to [Table 1 in Point 7](#), CLEP doubles the cashflow for EE and greatly increases both the access to solar by roughly a factor of 10 and the remuneration provided by solar by over 10% over retail and which is more than two times the wholesale price.

**R-99-433, R-17-427 and R-18-475**

Reliability is a major concern of the Council, 1998.<sup>35</sup> August 10, 2017.<sup>36</sup> October 31, 2018.<sup>37</sup> Even within ENO's Rate Case filing, ENO has not produced any proposal with a clearly defined/projected Benefit/Cost proposal. ENO's RIM plan is an improvement but still does not have

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<sup>34</sup> *The Advisors do find it important, however, that ENO has submitted evidence backed by a study performed by Navigant Consulting, Inc. ("Navigant") that the 2% DSM Goal is not achievable and no party has put evidence into the record that demonstrates that the 2% DSM Goal is achievable. 3/8/2018, R-18-65, p 32.*

<sup>35</sup> Council Resolution **R-99-433** also advised ENO that the assessment of financial penalties were to be determined and implemented annually based upon a Council finding that the reliability achieved annually by ENO in each of its networks, as defined in ENO's remediation plans, failed to achieve the level of reliability proposed by ENO, and ENO's reliability performance for each of its networks were to be measured by comparing ENO's actual SAIFIs achieved each year in comparison to those SAIFIs projected to be achieved by ENO in its network remediation plans

<sup>36</sup> **R-17-427**, 8/10/2017, **ESTABLISH MINIMUM ELECTRIC RELIABILITY PERFORMANCE STANDARDS AND FINANCIAL PENALTY MECHANISMS**

<sup>37</sup> **R-18-475**, 10/31/2018, **PRUDENCE INVESTIGATION REGARDING ENO'S SERVICE DISRUPTIONS**

such a proposed Benefit/Cost projected effectiveness.<sup>38</sup> In that case, wherein the Council is expected to spend tens of millions of dollars each year, rollout a RIM plan, and incent ENO with increasing Return on Equity (ROE) if more successful. But, by comparison with CLEP, most of this is highly uncompetitive with the cost-effectiveness that CLEP provides to enhance reliability.<sup>39</sup> BSI proposes a solution to this, via CLEP. This idea is well explained in the [first section of Point 2](#).

### **R-06-402 and R-19-111**

The Council wants both rooftop solar and community solar programs to grow, but ENO and even the Advisors believe that non-solar customers are subsidizing NEM and will subsidize community solar customers.<sup>40</sup> Compare this bleak appraisal of the cost-effectiveness of solar that, if true, indicates that promoting solar runs afoul of Cost-Causation principles, to CLEP's appraisal of Solar remuneration in [Table 1](#). In that table, using CLEP's cashflows, community solar (CS) is remunerated above the retail price even though CLEP is strictly devoted to Cost-Causation.

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<sup>38</sup> Entergy New Orleans, LLC Public Version, Revised Direct Testimony of Joshua B. Thomas, Docket No. UD-18-7, September 2018, p 4.

<sup>39</sup> *Q13. HOW CAN CLEP INCREASE RELIABILITY AND RESILIENCE AT A NEGATIVE COST?* MBK's Direct Testimony, p 32.

<sup>40</sup> "ENO states its work in that docket demonstrated that the existing NEM policy of providing net metered customers a 1:1 retail credit on their bills for the energy they export to the grid, regardless of whether that energy is needed at the time, is inherently inequitable because it causes a shift in costs from NEM customers to all others", page 38, R-19-111, 3/28/2019.

## R-17-7 and R-18-99

The AMI resolutions first authorize about \$75 million to roll out smart meters<sup>41</sup> and then authorize an additional \$5 million to accelerate their rollout,<sup>42</sup> with a promise to ratepayers that the payback to them will exceed the first costs in a few years by upwards of \$25 million/year. However, we know that this is not possible without a TOU rate. Moreover, CLEP outperforms “old school” TOU rates by at least a factor of two. See [Table 1](#).

### FERC Cost Causation Ruling

All customers suffer from cross-subsidies that are all unfair to them,<sup>43</sup> raise their bills, put some at risk of moving away,<sup>44</sup> raise utility costs and promotes litigation between customers and customer classes. [CLEP largely extinguishes cross-subsidies](#).

### R-17-303

NOLA wants to adhere to its Paris Climate Change Treaty obligations.<sup>45</sup> But ENO is far from green,<sup>46</sup> and access to green power is not properly priced to incent the technologies to optimally access them. However, as is explained in [Table 1](#), CLEP increases access to solar by a factor of 10 and doubles remuneration compared to the wholesale price of electricity.

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<sup>41</sup> **R-17-7**, 1/12/2017, **APPROVAL TO DEPLOY ADVANCED METERING INFRASTRUCTURE**

<sup>42</sup> **R-18-99**, **RESOLUTION AND ORDER DIRECTING ENTERGY NEW ORLEANS, LLC TO ACCELERATE IMPLEMENTATION OF ITS ADVANCED METERING INITIATIVE**, April 5, 2018.

<sup>43</sup> *HOW EQUITY IS ACHIEVED BY BASING RATES ON COST CAUSATION*: When rates are based on cost causation, each customer pays what it costs the utility to provide service to that customer — no more and no less. If rates are based on anything other than cost factors, then some customers will pay the costs attributable to providing service to other customers — which in most cases is inequitable. Brubaker, Feb 1, 2019, p 12.

<sup>44</sup> *COST-BASED RATES ACHIEVE COST-MINIMIZATION* If a utility attempts to extract a disproportionate share of revenues from a class that has alternatives available (such as producing products at other locations where costs are lower), then the utility will be faced with the situation where it must discount the rates or lose the load, either in part or in total. Brubaker, Feb 1, 2019, p 14.

<sup>45</sup> <https://www.nola.gov/resilience/climate-action/>, July 2017. <https://council.nola.gov/meetings/2017/20170615-regular-meeting/>

<sup>46</sup> Over 50% of ENO’s electricity generation is fossil fuel based. According to ENO’s lead attorney’s “opening statement” on June 17<sup>th</sup> at the onset of the Evidentiary Hearing.

**Point 2: What are the goals of this Rate Case that can be achieved by CLEP?**

BSI bundles the issues from the 2018 Combined Rate Case as follows:

- 1. Reliability, Smart Meters, Grid Modernization, & Rate of Return**
- 2. Subsidization, Rate Shock, Base Rates, Riders and Tariffs, and**
- 3. Community Solar and Green Pricing**

**1. Reliability, Smart Meters, Grid Modernization, and Rate of Return**

BSI agrees with ENO’s proposal to have a Reliability Incentive Mechanism (RIM) described by Joshua Thomas<sup>47</sup> to fund the Grid Modernization project proposed by Ericka Zimmerer,<sup>48</sup> with some exceptions.

First, we endorse most of the facets of the RIM proposal, including that it first starts with a 25 basis points “demerit” in ROE consistent with the fact that ENO’s reliability, as measured in System Average Interruption Duration Index (SAIDI),<sup>49</sup> is poorer than the nationwide average with recent performance in the bottom quartile.<sup>50</sup> There is a reward to ENO of a 25 basis points rise in ROE when reliability is on par with most other utilities. If ENO can achieve reliability on par with the top 33% of utilities, excluding named storms, ENO will earn another reward of 25 basis points.

While achieving a better (which means lower) System Average Interruption Duration Index (SAIDI) is a step towards improving reliability, we believe the Customer Average Interruption

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<sup>47</sup> Entergy New Orleans, LLC Public Version, Revised Direct Testimony of Joshua B. Thomas, Docket No. UD-18-7, September 2018, p 4.

<sup>48</sup> ENO Exhibit EH2-1, ENO 2018 Rate Case, Page 3 of 24

<sup>49</sup> Footnote for all four definitions: SAIDI, SAIFI, CAIDI, and CAIFI can be found at <https://en.wikipedia.org/wiki/CAIDI>

<sup>50</sup> Eno is in the bottom 1/4 quartile in reliability. Myra Talkington, Evidentiary Hearing, [6/18/19 1:08 PM]

Duration Index (CAIDI) (already an industry standard) would be better for ENO’s ratepayers’ reliability because CAIDI is customer-focused instead of system-focused. BSI is proposing that ENO’s reward should be based upon its CAIDI score instead of its SAIDI score. One reason is found in this article that asserts: improving SAIDI without a concern for CAIDI is short-sighted.<sup>51</sup>

Better still would be a metric that also improves the “effective” CAIDI score to the extent that customers have an on-site, four-hour battery backup or a 20-hour whole-home battery.<sup>52</sup> CLEP is the only mechanism under consideration that will help NOLA customers achieve improved individual reliability by actions they can take individually and privately. Incremental improvement in customer reliability will improve the grid’s overall reliability tremendously since such customers will be autonomous in major outages and can provide vital community services at critical moments such as keeping convenience stores operating during storm events.<sup>53</sup> Using CAIDI improved by onsite backup is an incremental approach, but it is one that does not require any government or utility subsidies. The system reliability measured via this effective CAIDI metric is effectively enhanced through providing a deregulated open system that empowers the ratepayer to make individual financial decisions that are not inhibited by regulation or artificial barriers to entry by the regulatory utility monopoly.

BSI also endorses most of the elements of the Grid Modernization project regarding using smart meters to help identify distribution system problems before they break and to isolate outages to a smaller number of customers, using grid automation to better maintain equipment, and provide for Distributed Energy Resources (DER).<sup>54</sup> However, we believe *Grid Modernization investments should*

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<sup>51</sup> <https://www.elp.com/articles/print/volume-86/issue-2/sections/td/using-caidi-as-a-leading-indicator.html>

<sup>52</sup> MBK Direct Testimony, page 29, line 14.

<sup>53</sup> Lessons learned from Hurricane Sandy. <https://www.greentechmedia.com/articles/read/microgrids-hurricanes-resiliency#gs.epb1q0>

<sup>54</sup> ENO Exhibit EHZ-1, ENO 2018 Rate Case, Page 3 of 24

*be made on both sides of the utility meter.* CLEP, and only CLEP adequately incentivizes ratepayers to make substantial investments on the ratepayer's side of the meter without any financial drag on the utility or the utility regulator. RMI's report<sup>55</sup> confirms that batteries installed on the customer side of the meter are far more cost-effective investment both for the very services ENO proposes to use to improve Distribution System Reliability as well as the customer side: DR and enhanced on-site reliability. Whole-home batteries are not economically feasible investments for ratepayers without CLEP.

By using many to most of the combination of technologies described in the [Key Retrofits section of MBK's Direct Testimony](#),<sup>56</sup> a typical home can be fitted to nearly be functionally off-grid. With CLEP, a home or any number of nearby buildings can form a microgrid financed by the Distributed Energy Resources (DER) benefits they provide to the Grid which will support other residents in close proximity during emergency conditions. The benefits of this structure were proven during the aftermath of Hurricane Sandy in New York. Hundreds of local and private microgrids saved lives by providing power to thousands of victims of outages outside of the microgrids, making it possible to keep cell phones charged and thus maintain vital communications and access to emergency services.<sup>57</sup>

CLEP customers will be expected to provide their own financing for their own DER which will enhance reliability of ENO's grid. The CLEP customer's source of funds will be derived through the CLEP revenue stream. Therefore, we propose a reconciliation between ENO's Grid modernization

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<sup>55</sup> Fitzgerald, Garrett, James Mandel, Jesse Morris, and Hervé Touati. The Economics of Battery Energy Storage: How multi-use, customer-sited batteries deliver the most services and value to customers and the grid. Rocky Mountain Institute, September 2015. [http://www.rmi.org/electricity\\_battery\\_value](http://www.rmi.org/electricity_battery_value)

<sup>56</sup> MBK's Direct Testimony, Page 27 – 31.

<sup>57</sup> Lessons learned from Hurricane Sandy. <https://www.greentechmedia.com/articles/read/microgrids-hurricanes-resiliency#gs.epb1q0>

and the CLEP rate structure such that customer-side reliability design is on par with Grid Modernization goals.

Under this vision:

- Customers like Air Products that do not use the distribution system would not be charged for any investments made by ENO for a Reliability Incentive Mechanism.
- Customers who can demonstrate that they have a 4-hour microgrid will also be excused from paying for any investments made by ENO for RIM.
- Moreover, an analysis should be made on the economic benefits of the Advanced Metering Infrastructure (AMI) that weighs both the economic value of CLEP-induced decline in ENO peak demand and CLEP-induced improvement in effective CAIDI.

## **2. Subsidization, Rate Shock, Base Rates, Riders and Tariffs**

*The current cross-subsidies between rate classes violate FERC's cost causation principles and need to be eliminated. Doing so would cause Rate Shock. Implementing CLEP with some retrofits while these subsidies are being phased out over ten years would avoid rate shock.*

Subsidization, Rate Shock, Base Rates, Riders and Tariffs are interdependent issues. Firstly, subsidization between Rate Classes, is not equitable, and subsidization violates Cost Causation as mandated by FERC. Subsidization is done to shield residential customers from paying their full share of utility costs and has been endemic in ENO's Rate Structure for at least a decade. Prior Councils created \$35 million in cross subsidies that lowered residential rates.<sup>58</sup> BSI is inclined to believe that

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<sup>58</sup> Table 4 from Mr. Baron 's testimony shows a total of \$35.5 million in subsidies to residential from commercial customers. Evidentiary Hearing [6/18/19 10:11 AM].

the current Council would remove the cross subsidies while moving toward equitable cost distribution, sustainable design, and reductions in carbon footprint, as long as this can be accomplished without negatively impacting the economically challenged ratepayer. CLEP can help accomplish these challenges and allow the cross subsidies in place to be phased out over a 10-year period. Rate shock on residential customers can be more than avoided by many new CLEP residential customers by implementing the most rudimentary and least costly of CLEP's key retrofits: programming a water heater after adding a timer.

ENO's proposal in the 2018 combined Rate Case would increase cross-subsidization between rate classes.<sup>59</sup> Such subsidies both discourage EE investments<sup>60</sup> and lower long-term expectations that subsidies will outlast the payback periods of these investments. CLEP provides subsidy-free incentives based upon true cost-based rates which should be less likely to sunset rather than unfair subsidies that may be eliminated in subsequent years.<sup>61</sup> Ratepayers are very aware that they may not be able to rely on a subsidy continuing for the full amortization period of the financed improvement. However, ratepayers do generally believe that rates are more stable than tax credits or subsidies which are subject to annual government budget constraints. Subsidization is not a progressive approach compared to true, cost-based rate design.

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<sup>59</sup> ENO wants to avoid rate shock in for Algiers' residential customers who were paying less for electricity than their neighbors in the same city but on the East bank. ENO's proposal accomplishes this by increasing cross subsidies in favor of residential and by increasing the cross-subsidy burden onto non-residential customers. Brubaker, p 14.

<sup>60</sup> *COST-BASED RATES ASSIST CONSERVATION* Conservation occurs when wasteful, inefficient use is discouraged or minimized. Only when rates are based on costs do customers receive a balanced price signal upon which to make their electric consumption decisions. If rates are not based on costs, then customers who are not paying their full costs may be misled into using electricity inefficiently in response to the distorted rate design signals they receive. Brubaker, p 13.

<sup>61</sup> <https://www.jdsupra.com/legalnews/from-sunrise-to-sunset-phasing-out-the-35439/>



BSI recommends denying any increase in subsidization, and alternatively proposes returning all rate classes to parity with Cost Causation at a rate of 10% of the cross-subsidy between customer classes per year, eliminating all cross subsidies by 2029.

BSI recommends reducing fixed charges to a maximum of \$5.00 per month and replacing declining block rates with inclining block rates; as advocated by Alliance for Affordable Energy's witness.<sup>62</sup> BSI recommends putting the residual cost-of-service into the volumetric rates, including all payments for capital investments the Council deems appropriate. Every effort should be made to align charges proportional to the number of kWh consumed, rather than placing the recovery of capital expenses through fixed "connection" charges.

To avoid Rate Shock, the Council should immediately offer CLEP as an OPT-IN rate to all customers so that they can use CLEP to lower the sum of their ENO bills and CLEP income to more than avoid rate shock much faster than the rates will increase. CLEP is the only mechanism presently available to help consumers mitigate the shock of removing cross-subsidies.

### **3. Community Solar and Green Pricing**

The Community Solar (CS) program is distressed because it assumes that the primary way CS will be implemented is through the utility ownership.<sup>63</sup> CLEP's approach assumes that CS farms are

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<sup>62</sup> Alliance for Affordable Energy Public Version, Direct Testimony of Justin R. Barnes, CNO Docket No. UD-18-07 February 1, 2019, p 4.

<sup>63</sup> The tens of disputes and resolution issues in that RESOLUTION that were needlessly discussed—are nakedly displayed. See Appendix 1. *"Investor-owned utilities see the recent rapid growth of rooftop solar--and all forms of homemade electricity, for that matter--as a revenue-killing, disruptive threat, particularly after a report last year from industry think tank Edison Electric Institute that both terrified and galvanized the industry. Utilities are fighting back with multimillion-dollar anti-solar ad campaigns that portray solar homeowners as mooching "free riders" who avoid paying their fair share for the grid and thereby raise electricity prices for everyone else."* <https://www.sierraclub.org/sierra/2014-3-may-june/feature/throwing-shade-how-nations-investor-owned-utilities-are-moving-blot>

privately funded enterprises independent of any utility control or influence. Treating CS farms as private enterprises makes the [majority of the issues addressed by R-19-111](#) moot as well as the assertions made by Andrew Owens in his testimony in his rebuttal to BSI and AAE's testimony April 2019.<sup>64</sup> The rationale for inserting in [an appendix](#) to this brief of a fundamentally THROW WAY, 15-page list of assertions in 10-point form from a single RESOLUTION is to help make the point (as was advised to Myron Katz by a top and extremely well respected national utility researcher), that the primary way Investor Owned Utilities effectively kill community solar is to weigh it down with a very complex and exhaustive "enabling resolution" so that no private investor would touch it for fear of the enormous legal burden needed to get through the paperwork.

Although mandated to be included in the 2018 Combined Rate Case by means of a "Show Cause" Resolution,<sup>65</sup> Green Pricing as is not the right path forward for the City of New Orleans. It neither lowers rates, nor contributes to improve NOLA's local economic nor local environmental footprint. Unlike CLEP which harnesses the marketplace to ameliorate the causes of Global Warming and does this by merely encouraging least cost wholesale electricity purchases, Green Pricing moves in the opposite direction economically and provides no local benefits. BSI opposes Green Pricing and recommends that all funds considered for Green Pricing to be used to start another program and be invested in CLEP instead.

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<sup>64</sup> ENO Rebuttal Testimony Andrew Owens + Exhibits, CNO Docket No UD-18-07, March 22, 2019, p 25.

<sup>65</sup> **R-18-97** directs ENO to include as part of its 2018 rate case filing (i.e. the Application) a green pricing proposal under which customers may voluntarily choose to have some or all of their electricity supplied by renewable resources, **R-18-97**, April 8, 2018. The impetus behind R-18-97's directive that ENO provide a "green pricing" proposal is unknown. While the desired transition from fossil-fuel energy sources to renewable energy sources is a social, environmental, and economic imperative. Schemes which give the appearance of replacing fossil-fuel electricity with renewable electricity, but which don't accomplish that end, actually retard that transition. The use of low quality, voluntary Renewable Energy Certificates (RECs) simply to claim new renewable electricity generation (or "greenwashing") is one such false scheme. <http://www.localcleanenergy.org/files/What%20the%20Heck%20is%20a%20REC.pdf>

**Point 3: What are the goals of each party to this Rate Case that can be achieved by CLEP?**

ENO wants to be assured that its investments will be repaid with a profit and has proposed the Reliability Incentive Mechanism (RIM) described in Joshua Thomas' Direct Testimony<sup>66</sup> to finance and incentivize performance investments according to Ericka Zimmerer's Direct Testimony.<sup>67, 68</sup>

CCPUG<sup>69</sup> stakeholders are all "Large Electric/High Load Factor" commercial ratepayers. They want relief from high electricity bills, largely caused by purposely imposed cross subsidies onto them to lower residential customers' bills.

Air Products and Chemicals (APC)<sup>70</sup> wants rate relief. It is the only customer in the Interruptible rate class. APC has complete control over when it uses electricity and can shift its demand with virtually no loss in productivity. Without incentive to adjust its consumption pattern, it has no reason to adjust when it consumes electricity. APC has not benefited from a rate design that appropriately compensates for the fact that collecting nitrogen at night is certainly not as expensive as doing so during utility peak demand hours. Moreover, just like CCPUG, their rates bear a significant penalty to support lower rates by subsidizing residential customers. Also, APC does not use ENO's distribution system and does not want to bear the burden of its upgrades because APC receives all its power from the high voltage transmission system directly and has its own on-site infrastructure to step down voltages without any reliance on ENO's distribution system.

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<sup>66</sup> Entergy New Orleans, LLC Public Version, Revised Direct Testimony of Joshua B. Thomas, Docket No. UD-18-7, September 2018, p 4.

<sup>67</sup> ENO wants as high a ROE as possible. ENO asserts that ROE should be set according to the ability to attract capital. While the Advisors think it should be based upon Rate Design.

ENO wants to be penalized for poor reliability and incented with a normal to superior ROE as it improves accordingly. ENO wants to roll out AMI and smart technology that facilitates both TOU rates and DER.. but is only talking about such investment on the utility side of the meter.

<sup>68</sup> ENO Exhibit EHZ-1, ENO 2018 Rate Case, Page 3 of 24

<sup>69</sup> CCPUG is the Crescent City Power Users Group, represented by attorneys Luke Piontek and George Hardy.

<sup>70</sup> APC is represented by Carrie Tournillon.

CLEP is supported by multiple outside entities as a market-based solution that advances the goal of reducing CO<sub>2</sub> emissions. The Alliance for Affordable Energy (AAE) is advocating for lower residential bills, lower fixed cost connection fees, removal of declining block rates, more renewable energy, and DR—all of these issues are addressed through implementing CLEP; AAE would support a CLEP pilot that is limited in number but not by customer class. The Sierra Club fully supports CLEP because it is easier to be politically successful when promoting a market-based solution that is in alignment with its environmental goals. 350 Louisiana's views are a bit more like Sierra Club than AAE.

**CLEP addresses these parties' needs, as set forth below:**

ENO will greatly benefit from CLEP if [they merely follow the recommendations of Jan Vrins](#), Managing Director at Navigant Consulting, ENO's principal consultant on DSM.<sup>71</sup> BSI also supports ENO's RIM proposal with some mild revisions as explained in the [first part of Point 2](#).

CCPUG users such as City Hall, S&WB, medical campuses and universities may not get the rate relief they are seeking but can turn their electricity bills from a major cost to a major income using the formula / prospectus found in Pres Kabacoff's revamping the area around Charity Hospital. This formula demonstrates that 1,000,000 sq ft of office space normally has a \$1,000,000/y ENO bill than can be turned into a \$600,000/y income by investments ultimately financed through CLEP.<sup>72</sup>

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<sup>71</sup> See footnote 14 on page 9 of the MBK's Direct Testimony.

<sup>72</sup> *Spirit of Charity Innovation District*, Pres Kabacoff, HRI et. al., June 26, 2019.

Air Products can instantly benefit from a CLEP without any investments by them or the utility. Implementing CLEP would provide the necessary incentive for APC to adjust their energy usage to off-peak times, simultaneously reducing the cost to APC, reducing ENO's sourcing cost during peak demand, and improving the reliability of the system.

Many of the concerns listed above address the impact of ENO's capital recovery mechanism on the consumer's bill. CLEP does not impact that portion associated with ENO's cost-of-service (which includes fixed cost and variable cost of service) in the rate case cost model. BSI promotes a real way to decrease the cost-of-energy component of the customer bill and thereby segregates and does not disturb payments for capital.

BSI supports the rolling back of all cross subsidies. One of the reasons was promoted by Brubaker. It should be noted, that when commercial customers are subsidizing residential customers, as they are in the current scheme, residential customers are not as incentivized to reduce consumption. When ratepayers are charged their full cost of service, as proposed using CLEP, they are more likely to alter consumption practices which will most likely achieve the Council's stated goals.<sup>73</sup> As explained in [the second part of Point 2](#), BSI supports the rolling back of all cross subsidies between rate classes over ten years and to avoid rate shock in the interim, immediately provide for an OPT-in CLEP rate for all customers. This avoids, rate shock, promotes energy conservation and EE, stops violating cost-causation and provide the benefits listed in this brief's introduction.

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<sup>73</sup> Conservation occurs when wasteful, inefficient use is discouraged or minimized. Only when rates are based on costs do customers receive a balanced price signal upon which to make their electric consumption decisions. If rates are not based on costs, then customers who are not paying their full costs may be misled into using electricity inefficiently in response to the distorted rate design signals they receive. Brubaker, February 1, 2019, p 13.

BSI also supports AAE’s proposals to lower fixed-connection fees<sup>74</sup> to \$5.00 / month for residential customers and abandoning declining block rates as supported by Victor Prep, an Advisor’s witness.<sup>75</sup> BSI also supports the expansion of NEM and beyond and agrees with AAE that NEM is not a subsidy onto non-NEM customers<sup>76</sup>—in fact BSI’s calculations assert that paying for solar electricity generated in ENO’s distribution system at retail is an underpayment as explained in [Point 7 Table 1](#). BSI’s only difference with AAE is in timing, AAE supports a CLEP pilot accessible to all ENO customers. BSI already proposed that in 2016, time is running out as explained in [Point 10 of the Conclusions](#).

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<sup>74</sup> Alliance for Affordable Energy Public Version, Direct Testimony of Justin R. Barnes, CNO Docket No. UD-18-07 February 1, 2019, p 4.

<sup>75</sup> Victor Prep's Testimony in the Evidentiary Hearing: 6/20/2019, page 204 lines 9 - 12:

<sup>76</sup> Susan Miller in her cross examination of Joshua Thomas: asserts (quotes) from Mr. Thomas’ testimony on page 62. That ENO suffers cost shifting subsidies from Rooftop Solar onto itself and other customers. He thinks there does not need to be a study to confirm that assertion.

Susan thinks a study is necessary: *“If you only consider costs and you do not know the benefits, how can you deduce that there is a subsidy?”* 6/20/19, 11 AM Notes on Evidentiary Hearing.

**Point 4: How does CLEP address overlooked components of this rate case?**

This rate case is lacking in Rate Design; it did not sufficiently address rates. ROE and cross-subsidization received much more attention. One of the Advisors’ witnesses, Victor Prep,<sup>77</sup> stated as much in the Evidentiary Hearing and openly stated that he believed that immediately upon the resolution of this docket, another should be opened to fully consider Rate Design.

“13       A. I would agree within—in fact,  
14       recommend a subsequent proceeding to look at  
15       all aspects of rate design, rate structure.”

Alternatives to \$10/kw-m demand charges for commercial customers, TOU rates, and abandoning declining block rates<sup>78</sup> that should have been included in this rate case, were not discussed.

However, BSI introduced CLEP. CLEP’s much more forward-thinking approach, combines such alternatives with the use of “negative demand charges”. CLEP provides financing for a host of DER technologies that cannot otherwise be funded and allows customers to take control of their own electricity generation, storage and reliability, at much lower cost and more effectively than ENO. This process can turn ratepayers from CONSUMERS to PROSUMERS as recommended by the principal consultant to ENO on Integrated Resource Planning and Demand Side Management, Jan Vrins, a Managing Director at Navigant Consulting.<sup>79</sup>

Byron Watson, witness for the Advisors, stated that ROE should not be predicted upon the ability of the utility to attract capital, but instead on Rate Design.<sup>80</sup>

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<sup>77</sup> Victor Prep's Testimony in the Evidentiary Hearing: 6/20/2019, page 204 lines 13 - 15:

<sup>78</sup> Victor Prep's Testimony in the Evidentiary Hearing: 6/20/2019, page 204 lines 9 - 12:

<sup>79</sup> <https://classic.nga.org/files/live/sites/NGA/files/pdf/2017/Navigant%20Energy%20Transition%20November%20%202017%20NGA%20FINAL.PDF>

<sup>80</sup> 6/21 AM Evidentiary Hearing Notes.

## Point 5: How does CLEP help the utility make more profit?

When CLEP is used, the utility generates additional profit. This occurs by assigning a specific percentage of CLEP-generated savings to go towards utility profits. The  $p$  and  $q$  in the formulas for CLEP5 and CLEPm<sup>81</sup> assign the percentage of funds earned which goes to each customer. BSI recommends that  $p$  and  $q$  be initially set to 95%. The remaining 5% will be retained by the utility to pay for administrative costs and to buy down the “cost-of-energy” for all customers, thereby lowering every customer’s electricity price. The utility regulator can decrease  $p$  or  $q$  by 1-2% or more, in order to “**enhance utility profits**” by rewarding the utility for successful program implementation and performance.<sup>82</sup> A similar reward approach is already in place for the Demand Side Management (DSM) program, *Energy Smart*. Unlike other performance incentives, the proposed CLEP incentive would be easily calculated and most effective because it would be directly proportional to the total dollar amount of all CLEP transactions in a given year.

Another means to indirectly enhance ENO’s income is indicated by ACEEE:

*Investment in energy efficiency, renewable energy, distributed energy resources, demand response, and shifting of demand to non-peak hours generate more jobs and local economic development per dollar than investment in traditional infrastructure...*<sup>83</sup>

CLEP has additional effects on utility income and profits. The significant investments required to upgrade failing infrastructure can be done more cost-effectively, with today’s modern technologies.

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<sup>81</sup> Find the formulas for CLEP5 and CLEPm starting at line 17 on page 19 of the Direct Testimony.

<sup>82</sup> BSI has consistently maintained that a portion of the CLEP cashflow normally allotted to the CLEP customer can and should be retained by the utility. See Exhibit 1 of BSI’s Direct Testimony/CLEP battery pilot, BSI’s CLEP Battery Pilot submission to the 2015 ENO IRP, and CLEP’s 10-minute Pitch for the 2017 Bright Minds Challenge found at <https://www.BuildingScienceInnovators.com/uploads/1/0/6/2/106256229/customerloweredelectricityprice-10min-pitch.pptx>

<sup>83</sup> <https://aceee.org/blog/2019/02/florida-could-add-135000-jobs>, [www.aee.net/articles/advanced-energy-gains-125000-jobs-in-2018-growing-twice-as-fast-as-u.s.-employment-overall](http://www.aee.net/articles/advanced-energy-gains-125000-jobs-in-2018-growing-twice-as-fast-as-u.s.-employment-overall), <https://www.thesolarfoundation.org/solar-jobs-census/> and [https://www.epa.gov/sites/production/files/2018-07/documents/mbg\\_2-2\\_directelectricityimpacts.pdf](https://www.epa.gov/sites/production/files/2018-07/documents/mbg_2-2_directelectricityimpacts.pdf) <https://aceee.org/sites/default/files/Jobs%20Toolkit%203-8-19.pdf>



These new approaches, collectively called Distributed Energy Resources (DER)<sup>84</sup>, are rapidly becoming well-accepted in the utility industry. CLEP enhances the cash flows for these types of investments, often doubling them, without putting a burden on the utility's bottom line. CLEP financially promotes both purchasing and making electricity at the lowest cost and distributing it outside of peak demand times in a way that benefits the utility's bottom line and eases utility regulation.

Factors **p** and **q** were specifically inserted into the formulas for CLEP5 and CLEPm to provide mechanisms by which the utility could hold back a percentage of the CLEP income, to be used for purposes other than paying the CLEP customer, or if **p** and **q** are set higher than 1, to provide a short term incentive to encourage customers to try CLEP. Under Regulator guidance, those monies can:

- pay CLEP's administrative costs,
- buydown the current cost-of-energy (i.e., the fuel cost adjustment), in order to lower electricity pricing for all consumers,
- fund utility profit, and/or,
- creatively provide incentives. For example, encouraging new CLEP customers by paying them at a somewhat higher rate than 100% (i.e., by setting **p** or **q** > 1). This would effectively be a temporary way to subsidize consumer participation.

During the first rollout of CLEP, BSI recommends that **p** and **q** should be set to 95%, but those values are flexible. By setting **p** or **q** lower than what ENO requires to administer CLEP, the Council can allow the utility to receive a performance incentive from CLEP. The more popular CLEP becomes, the more profitable it can be to the utility—in turn, engaging the utility to become a partner in finding

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<sup>84</sup> DER's effect is extensively explained in Tommy Milliner's talk available as the 2nd video and 2nd PowerPoint presentation given on February 24, 2019 and available at <https://www.BuildingScienceInnovators.com/align-by-design.html>

additional (and more cost-effective) ways to encourage CLEP. Most noteworthy is that, as long as both  $p$  and  $q$  are less than 1, non-CLEP customers will not be subsidizing CLEP customers. In this case, the subsidy is real and always goes in the other direction.

Revenue recovery, which has hampered previous attempts at Real Time Pricing (RTP),<sup>85</sup> is not at risk with CLEP. CLEP5 can provide profits to the utility; RTP does not have this potential. CLEP does not replace the normal ENO rate and does not need to assure the regulator or utility that kWhs that pass through CLEP will help meet the utility's revenue requirements.

In the process, CLEP provides a mechanism similar but better than the concept called *Transactive Energy*, that lets ratepayers adopt the role of PROSUMER as opposed to solely CONSUMER, as explained by Jan Vrins,<sup>86</sup> the Segment Leader Managing Director for Energy of Navigant Research, the principal consultant to ENO on Integrated Resource Planning and Demand Side Management.<sup>87</sup>

Similar but better than the Transactive Energy concept,<sup>88</sup> CLEP

- enables the transition from CONSUMER to PROSUMER role
- without changing the fundamental retail rate structure for those customers who are not inclined

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<sup>85</sup> <https://www.osti.gov/servlets/purl/836966>, page ES-3. This is a 2003 study on RTP by our government.

<sup>86</sup> <https://classic.nga.org/files/live/sites/NGA/files/pdf/2017/Navigant%20Energy%20Transition%20November%20%202017%20NGA%20FINAL.PDF>

<sup>87</sup> *The Advisors do find it important, however, that ENO has submitted evidence backed by a study performed by Navigant Consulting, Inc. ("Navigant") that the 2% DSM Goal is not achievable and no party has put evidence into the record that demonstrates that the 2% DSM Goal is achievable. 3/8/2018, R-18-65, p 32.*

<sup>88</sup> *Effective Energy Management with an active Demand Response (DR) is crucial for future smart energy system. Increasing number of Distributed Energy Resources (DER), local microgrids and prosumers have an essential and real influence on present power distribution system and generate new challenges in power, energy and demand management. A relatively new paradigm in this field is transactive energy (TE), with its value and market-based economic and technical mechanisms to control energy flows. Due to a distributed structure of present and future power system, the Internet of Things (IoT) environment is needed to fully explore flexibility potential from the end-users and prosumers, to offer a bid to involved actors of the smart energy system. <https://www.mdpi.com/1996-1073/11/3/568/pdf> : 9 February 2018*

- while enabling those who are so inclined to try to better manage their energy usage in order to help best optimize system costs and reduce their bills accordingly
- to obtain the benefits otherwise accessible only through Transactive Energy tariffs—only effective with deep investments in AC's, Refrigerators, etc., not yet here but will be in the future *Internet of Things*.

## **Point 6: What is involved for a Ratepayer in Being and Becoming a CLEP customer?**

### ○ **Being a CLEP customer involves**

#### **1. Does he still pay his normal ENO bill?**

A residential customer will to pay his normal ENO bill but will find on that bill a new line item CLEP—which may lower or increase his bill.

#### **2. What happens after the customer chooses to become a CLEP customer?**

A residential customer will learn that (s)he now has many new opportunities to lower the bill and may learn that doing nothing new can allow any of the following: it will go up, go down or hardly change. The most important question for most people is What can be done to lower the bill? That is the subject of the next question.

CLEP is designed to have no effect on average for all customers because of its ability to [extinguish energy-cost-shift and demand-cost-shifts](#)—whatever is happening, it is averaging itself out among all ENO customers. Whatever is going on on-average will still be going on, merely getting a CLEP bill doesn't change that; instead it “just” alerts the new CLEP customer where he is in that spectrum: Is he more an energy-cost-shifter onto himself or onto others? More a demand-cost-shifter onto himself or onto others? And this information can be provided on a daily, monthly or annual basis. It is likely that these two answers will change from month to month. The customer need not wait until after he becomes a CLEP customer to get a hint about what kind of cost-shifter he is? How big is this effect in dollars/month? And how much it depends upon on the month of the year? That information is explained in the second part of this discussion: entitled [What is involved in BECOMING a CLEP customer?](#) In that section, it explains that ENO will provide a website and ask the perspective new CLEP customer to answer some questions and with those answers estimate which kinds and magnitudes of cost shifts are already going on in that home. It will also perform “WHAT IF” analyses

that suggest the kinds of ways to save money—some with little to no investment and some with much greater investments.

After experimentation with that website, we have a new CLEP customer. So, what happens next?

### **3. How (s)he can lower the ENO bill?**

BSI expects that the early adopters will be a mixture of conservative and radical pioneers. Some will merely try the no-cost, low-cost retrofits in [Table 1](#): e.g., programming a dishwasher and/or programming a standard electric water heater. Some will buy an electric car, buy into a community solar farm or even look at newly emerging technology like an ice-making air conditioner. BSI hopes that many will go halfway there and buy a heat pump water heater. [Table 1](#) provides a good hint about the Benefit/Costs for each retrofit. However, [Table 1](#) is not even close to being an exhaustive list and it is not customized to fit your particular situation. The most experimental or those especially concerned about reliability against outages may figure out that buying a large electric battery may be the best investment.

### **4. Does the CLEP customer need to stay up all night? And what about Aggregators?**

There are two fundamentally different ways to approach getting the most out of being a CLEP customer: ONE WAY is to set each appliance to run the same way every day of the year (or season) or a SECOND WAY is to contract with an Aggregator<sup>89</sup> to improve your ability to maximally exploit the CLEP opportunity. At first, we expect there will few if any aggregators for CLEP ready to go and thus virtually every new CLEP customer must do something like the first choice. Indeed, [Table 1](#), is

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<sup>89</sup> <https://energypost.eu/how-aggregators-will-alter-fundamentals-of-electricity-business/>

based upon exploiting CLEP with one schedule for a day to be used throughout the whole year approach.

However, we know that the US market has many energy aggregators who already do very well, and we think that the CLEP opportunity will attract competition among aggregators. In fact, the largest and most successful energy service company in the world, Johnson Controls,<sup>90</sup> has already expressed interest in becoming an energy aggregator for CLEP. In this case, BSI guesses that XYZ Aggregator will ask for a 10% cut in the CLEP cashflow to manage and optimize your energy consuming / storing / generating equipment. XYZ will provide you with a contract to sign. Thereafter XYZ will install remote controls on some of your equipment and directly monitor your ENO bill. Since the CLEP income is a separate line item, that's all XYZ need monitor. If CLEP income is \$152 for 2020, you will owe XYZ corporation, \$15.20 and you'll get to keep,  $\$152 - \$15.20 = \$136.80$ . You'll probably be thrilled because BSI projects that at least 20% more income will be generated with XYZ's help than if you used the controlling once a year approach.

#### **5. What are the projected effects on Low-Income customers?**

A Low-Income residential customer is likely to have an electric water heater and few if any other easily programmable appliances. BSI estimates that a \$50 investment will generate a \$100 per year income. However, even more income is also very feasible with the Community Solar option. Such a customer may choose to rent \$5 kW of solar panels in a community solar farm anywhere in NOLA. [Table 1](#) estimates that the rental fee will be \$420 and the annual income will be \$1175, thus a net income of \$755. So far, we've lowered a low-income residential customer's bill by more than \$800

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<sup>90</sup> A Johnson Controls (JC) representative met with Andrew Tuozzolo and Pres Kabacoff on July 30<sup>th</sup>, 2018. Pres presented his proposal to utilize CLEP to help finance tens of millions of dollars' worth of high-tech energy saving technologies for this Charity Hospital Revitalization proposal. JC (expressed great interest in the project and in CLEP,) if so, JC would provide the "bank".

per year. That's quite good considering that on average, ENO annual residential bills are not far from \$1200.

#### **6. What about interruptible rate class customers or churches?**

A residential customer would find it hard to use electricity like a church: namely hardly using electricity during the afternoons on workdays, but instead, use electricity outside of those times... somewhat like a church.. mostly on the weekends or on summer evenings. But if he did, there would be a great CLEP income... probably over \$400 a year. This can be done, but it would require lifestyle changes that BSI thinks are not a good fit for many customers. But, it is a choice that some may choose to take. Maybe this can be easily done by choosing employment that keeps the occupants out of the home during most of those hours.

#### **7. Access to Solar power?**

A CLEP customer need not have access to rooftop solar to get the benefits of solar ownership. In fact, with CLEP the income from Community Solar is greater than for rooftop and without all the hassles: building ownership, roof quality, nearby trees, historic restrictions... Community solar literally increases access to solar by a fact of 10 in NOLA—and if built at grid scale, as [Table 1](#) assumes, the cost of ownership / rental is as small as \$420 per year for \$5 kW.

#### **8. Projected bills in various scenarios.**

A good way to estimate CLEP income and savings on ENO bills is found in [Table 1](#). For example: A residential customer will earn \$100 to \$150/y with CLEP by programming an electric water heater to only operate at night (\$50 in labor and materials). See Timed Water Heating.”

○ **Becoming a CLEP customer involves educational, outreach and data-handling services.**

BSI's vision is that ENO will provide: a website<sup>91</sup> that accurately describes CLEP, using easily understood terms, inserts in customer bills that explain CLEP, and information on how to opt in. E.g., customers who wish to choose CLEP would simply use their log-in account on ENO's website or a simple paper form, such as an opt-in checkbox on the existing bill. It is important that ENO describes CLEP fairly and accurately in terms that are easily understood by ratepayers. BSI has created its own CLEP\_Dashboard which clearly demonstrates most of the multiple benefits of CLEP— which could be accessed through a link, for those who wish to learn more.

BSI has shown the CLEP\_Dashboard, operating in real time, to key members of the Council and their staff as well as in the BSI's opening statement in the Evidentiary Hearing.<sup>92</sup> CLEP's **p** and **q** variables in CLEP's [CLEPm](#) and [CLEP5](#) calculations provide an easy mechanism for the Council to simply adjust ENO's profit from CLEP as it sees fit. As explained in the BSI's Direct Testimony, CLEP provides a provision for the Council to easily adjust this value annually. These values are presently defaulted to 95%.

The CLEP\_Dashboard provides the user a selection of choices. For example, low-income residents might choose a timed water heater, which has an investment of about \$50, but saves the consumer \$100 a year and saves more than using ENO's bill alone. This one investment reduces demand at important times and saves consumers money.<sup>93</sup>

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<sup>91</sup> "Any customer so connected to ENO can obtain a virtual CLEP bill before choosing CLEP, and ENO will provide that information broken down on a five-minute and monthly basis for a one-year period, or less time if it has been less than a year since ENO deployed AMI for that customer." MBK Direct Testimony, p 16.

<sup>92</sup>As presented at the Evidentiary Hearing, the CLEP\_Dashboard discussion was based on detailed calculations to substantiate the claims in the Direct Testimony.

<sup>93</sup> Allison Dupont, a licensed professional industrial engineer and BSI Brief editor asked: "Would a renter be able to opt-in without the input from the landlord? I would think that this would have to be a decision by the building owner?" Although Myron Katz doesn't agree, there are financing mechanisms like Property Accessed Clean Energy (PACE)



## Point 7: What are the Rationales for and Effects of CLEPm?

The preceding short question is a placeholder for all the following questions: Why does CLEP have [CLEPm](#)? What are the conditions precedent needed to define CLEPm? Why is it rational, equitable, and fair for residential customers to be sometimes paid a negative demand charge even when their demand is greater than zero while other customers are not afforded this opportunity? What is the importance of CLEPm? How does CLEPm enhance CLEP and set it boldly apart from “old school” TOU rates? What technologies are financed with CLEPm but not otherwise? How can CLEPm be deemed “clearly not a subsidy between ratepayers or rate classes?” What pays for CLEPm? What part of ENO’s fiscal plant does CLEPm synergistically and economically support and/or supplant? Why is \$50 a factor in CLEPm’s definition? How is CLEPm calculated? How is CLEPm like and unlike a traditional demand charge? which is synergistic with: What is wrong with traditional demand charges that CLEPm fixes? In the presence of smart meters, why is it a violation of FERC’s cost-causation order for any ratepayer to be i) excused from paying a demand charge, ii) have a time-independent demand charge or iii) some customers to have a different demand charge rate design than others?

These questions are answered below.

### 1. What is the CLEPm rate?

$$\text{CLEPm is defined} = \mathbf{q} * (\mathbf{Dr} - \mathbf{Da}) * \$50.$$

Where  $\mathbf{q}$  is a utility regulator assigned "percent" and BSI recommends  $\mathbf{q} = 95\%$  initially.  $\mathbf{Dr}$  is the *reference* demand and is "custom" set  $> 0$  for each residential customer and set  $= 0$  otherwise.  $\mathbf{Da}$  is the *actual* average demand during PUDH. And the \$50 value conforms to the explanation in #8 below.

CLEPm is a charge when  $\text{CLEPm} < 0$  and CLEPm is a payment to the customer when  $\text{CLEPm} > 0$ .

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financing that can help provide the front money and long-term financing. In that case, the landlord would need be party to any purchase and financing decisions... but not becoming a CLEP customer. The landlord’s approval may be needed to invest in [relatively expensive](#) retrofits.

## 2. Why does CLEP have CLEPm?

CLEP5 at best only pays 10% of the cashflow needed to support installation of electric batteries. Since batteries on the grid provide a wealth of services including reliability (in the relatively rare case that outages occur) and accommodating variations in renewable energy (RE) output (which is far more likely an occurrence than an outage), electric batteries are being recognized as the next step towards assuring a sustainable future. CLEPm provides 2 to 10 times the cashflow for a variety of related energy saving investments; the ratio for batteries is approximately 9 times.

## 3. What are the conditions precedent needed to define CLEPm?

CLEPm requires smart meters (an alternative) because CLEPm requires high temporal resolution to reward avoided demand and penalize unmanaged demand when such demand is nearly coincident with the utility's peak demand. Smart meters provide the information that CLEP needs in service to all generation sources within the distribution system and all customers. However, CLEPm is also defined to pay a negative demand charge for residential customers, but only in some very important cases, even when their demand is not negative. As explained below, CLEPm's definition for residences depends upon defining a REFERENCE demand (**Dr**). Anytime the actual demand (**Da**) of such residences is below the **Dr** in that month, CLEPm pays a "*negative demand charge*" through a payment or reward. Otherwise, when the actual demand is above the reference demand, then the ratepayer pays CLEPm set proportional to that difference.

**4. Why is it rational, equitable and fair for residential customers to be sometimes paid a negative demand charge even when their demand is greater than zero, while other customers are not afforded this opportunity?**

The largest and most poorly exploited energy reserve in the world is the inefficiency of buildings<sup>94</sup> and, particularly residential buildings. This inefficiency has greatest economic value during Peak Utility Demand Hours (PUDH)<sup>95</sup>. Residential demand is the most consistently reliable and understood energy consumption model, and generally represents the bulk of electricity demand that utilities must provide. The designers of CLEP are seeking a reasonable way to reward non-residential customers for negative demand and will promote that new improved definition of CLEPm when and if a good answer is found. However, there are two good and reasonably equivalent ways to define **Dr** for a residence.<sup>96</sup> One is using the international standard for home energy performance testing provided by [www.RESNET.us](http://www.RESNET.us), or equivalent. Two is to set **Dr** as the weighted average measurements of actual performance of a large cadre of comparable homes in the same locale during the same month. The rationale is: if a home is out-performing peers for what it was when it was new, it should have **Dr** set somewhat higher than that performance and thereby cause/allow CLEPm to pay a reward to that residence. Since CLEPm will reward all residences accordingly (although **Dr** will vary based on home “classification”), CLEPm will provide an economic incentive for homes with higher peak demand during PUDH to invest in peak demand-reducing and/or EE investments that lower such demand. The expectation is that the cadre of homes that are compared to a target home will, over time, improve their performance and thus drive down **Dr** for the target home. Therefore, the target home will have to continually consider and make increasing investments to decrease demand during PUDH to continue receiving CLEPm payments as high as before. By this mechanism, CLEPm will “mine” this untapped

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<sup>94</sup> “Buildings account for nearly 40% of the total energy consumption globally and it is estimated that potential energy savings in buildings could reach between 20 and 40%”, [https://www.worldenergy.org/wp-content/uploads/2013/09/Complete\\_WER\\_2013\\_Survey.pdf](https://www.worldenergy.org/wp-content/uploads/2013/09/Complete_WER_2013_Survey.pdf), p 20.

<sup>95</sup> See the last sentence of footnote 15 on page 13 of MBK’s Direct Testimony. Although this 500+ hours a year are not so named, “PUDH” in the Direct Testimony their definition continues on page 14: “... the currently proposed definition of CLEPm restricts its applicability to May through September, on weekdays and between 2 PM and 7 PM.”

<sup>96</sup> MBK’s Direct Testimony, page 17,

resource in building energy performance through energy waste during PUDH, which is and has always been the cheapest and *lowest hanging fruit* in the energy industry.

### **5. What is the importance of CLEPm?**

CLEPm is believed to be the best, first and most complete way to resolve the problems with misallocated demand charges that were designed when real time monitoring and feedback was not available. CLEPm applies to all customers, including residential, and when coupled with CLEP5 produces a “complete” way to fairly<sup>97</sup> financially reward all customers EQUALLY for avoiding demand or providing power during PUDH, i.e., the 500 to 600 hours of the year when the utility procures at a significant premium to supply power to its customers. This premium is not borne by the utility, but instead is passed on directly to the ratepayer through a cost-of-energy or fuel adjustment fee. Because only coincident demand by many to most customers will contribute to a utility’s peak demand, creating the need to build more peaking plants, charging for demand at times different from PUDH is not economically equitable and thereby does not penalize or reward customers for demand in a way that is timely and can adequately reimburse the utility for costs thrown onto it that it must then push onto all customers.

### **6. How does CLEPm enhance CLEP and set it boldly apart from “old school” TOU rates?**

The best answer to this is found in [Table 1](#)<sup>98</sup> below. CLEPm exceeds or dominates the cashflow from CLEP in almost every example.

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<sup>97</sup> Under cost causation, “*all approved rates [must] reflect to some degree the costs actually caused by the customer who must pay them.*” K N Energy, Inc. v. FERC, 968 F.2d 1295, 1300 (D.C. Cir. 1992).

<sup>98</sup> All the assertions in the table are direct expressions of content in MBK’s Direct Testimony... primarily from pages 27 through 31.

**TABLE 1: Cashflows Estimates of Key Retrofits – from Direct Testimony**

Key Retrofit	annual income		Net Income	Payback (years)	Capital Cost	Annual Rent	CLEPm / CLEP	Peak kW Saved
	ENO	CLEP						
Dishwasher	0	26	26	na	0	0	83%	1/5
Timed Water Heater	0	150	150	0.33	50	0	33%	4/5
Heat Pump Water Heater	372	80	452	0.66	300	0	62%	4/5
Ice-Making AC	330	1040	1370	2.19	3000	0	77%	4
Electric Battery (12 kWh)	0	686	686	14.58	10000	0	87%	3
Community Solar (5 kW)		1175	755	na	0	-420	53%	2
HPWH, Ice Making AC & Electric Battery	702	1806	2508	5.30	13300			

5 kW of Community Solar in NOLA produces 9125 kWh per year. Dividing \$1175 by 9125 will give the price per kWh; it is \$0.129 per kWh. Dividing that by \$0.11 means CLEP pays 17% higher than Retail.

**7. What technologies are financed with CLEPm but not otherwise?**

Table 1 demonstrates that among all these choices, only the Heat Pump Water Heater is adequately financed without CLEP. All but the Timed Water Heater example is primarily financed with CLEPm. Note that, even with the full economic power of CLEPm, the electric battery cannot be simply financed with CLEPm. Financing the battery depends upon coupling that investment with other energy storage options, e.g., the HPWH and Ice Making AC which are needed to work as a group to pay back all the first costs faster than the 10-year warranted life of the battery. That is, CLEPm creates the best non-subsidized cashflow that ratepayers may elect to use to install a battery to improve outage reliability instead of the alternative, added cost of installing a home backup generator which is a sunk cost without any opportunity for investment recapture.

**8. Why is \$50 a factor in CLEPm’s definition?**

*A good way to illustrate that the \$50 factor in the definition of CLEPm is appropriate* is through the following example of a small business that cools its building with a single 10-kW AC. This business

owner is considering whether to become a CLEP customer but is concerned about what will happen to his annual demand charge under CLEP. Before opting-in to CLEP, that customer will have a monthly demand charge of roughly \$100 every month of the year.<sup>99</sup> Therefore, the annual demand bill is \$1200 for 10 kW, or \$120/kW-year. However, these “demand readings” are based upon the measured maximum peak demand during any 15 minutes of a month, instead of average demand during PUDH.<sup>100</sup> Because average demand is slightly less than one-half of peak demand,<sup>101</sup> we can arrive at the \$50 factor as follows.

The annual demand charge starts at \$120/kW-y (= 12 times \$10/*peak demand in each month*.<sup>102</sup>)

The MBK’s Direct Testimony requires that this customer’s annual demand charge will not  
change.<sup>103</sup>

“The target of CLEPm is to generate a cashflow (proportional to) the same “average” cost of power charged, i.e. average demand charge, to non-residential customers [in the current rate structure] using the metric of \$/KW-year.”<sup>104</sup>

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<sup>99</sup> ENO’s demand charge is \$10/kW-m.

<sup>100</sup> See part b of the answer to 6. Also see page 13, line 3 of the Direct Testimony that states: “For example, if the average monthly demand charge is \$10/KW, this is equivalent to \$120/KW-year pricing.”

<sup>101</sup> See part a of the answer to 6.

<sup>102</sup> Air Conditioner dominated demand has this effect; this is true because AC’s are off more than half of each hour they operate. MBK’s Direct Testimony page 21.

<sup>103</sup> “*The target of CLEPm is to generate a cashflow (proportional to) the same “average” cost of power charged, i.e. average demand charge, to non-residential customers [in the current rate structure] using the metric of \$/KW-year.*” Page 12 line 19 of Direct Testimony. Where “Proportional to” means equal to but only diminished by the q factor in the definition of CLEPm.

<sup>104</sup> IBID.

Because CLEPm is based upon *average demand during PUDH*<sup>105</sup> and CLEPm replaces ENO's demand charges,<sup>106</sup> all we need is the annual value, **x**, so that  $\$120/\text{kW}\text{-y} = \mathbf{x}/\text{average demand during PUDH}$ .

Because average demand is slightly less than one half of peak demand,<sup>107</sup> we can let **x** = \$240. Unlike ENO's demand charge which accrues monthly,<sup>108</sup> CLEPm only accrues during 5 months.<sup>109</sup>

$$\frac{\$240}{\text{kW} * \text{year}} * \frac{1 \text{ year}}{5 \text{ months}} = \frac{\$48}{\text{kW} * \text{month}} \cong \frac{\$50}{\text{kW} * \text{month}}$$

Because average AC demand is a little less than one half of peak AC demand,<sup>110</sup> the simple answer is

$$\text{CLEPm} = \$50 * \mathbf{d}, \text{ where } \mathbf{d} = \text{average demand during PUDH}.$$

Please recall that CLEPm's definition = **q**\* \$50 \* **d**, where **q** = the % assigned to the ratepayer.

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<sup>105</sup> See definition of CLEPm just given, i.e., from page.20 of the Direct Testimony. Note that CLEPm uses "average demand during PUDH" as the measured quantity upon which charges are determined.

<sup>106</sup> See definition of CLEPm just given, i.e., from page 20 of the Direct Testimony.

<sup>107</sup> See part a of the answer to 6.

<sup>108</sup> Although \$240 is the annual factor, both the question and this customer need the monthly factor.

<sup>109</sup> Since PUDH only occur during 5 months, CLEPm is only charged during those months. This is reiterated on line 12 of page 21 of the Direct Testimony where it states: "*Utility near peak hours are annual and occur weekdays, May through September, between 2 p.m. and 7 p.m.; otherwise CLEPm = \$0 for that month.*"

<sup>110</sup> Because AC's are off more than 1/2 of each hour they are set to operate.

### **9. How can CLEPm be deemed “clearly not a subsidy between ratepayers”?**

CLEPm rewards customers for avoiding demand during peak hours at  $q$  \* the actual amount that customer shifts costs onto himself from other customers (where  $q$  is normally set to 95%) If  $q$  were = 100%, each customer would get 100% of the charge or reward for making demands during PUDH or avoiding those demands, respectively. However, by CLEP’s design,  $q$  is set lower than 100% to provide adequate cashflow (from  $100\% - q$ ) to administer CLEP, provide some profit to the utility and some funds to lower the price of electricity to all customers.

### **10. How can CLEPm be deemed “clearly not a subsidy between rate classes”?**

The intent if not the effect of CLEPm’s definition is to ensure that CLEP applies to all customer classes equitably, so that there is no cross subsidy between rate classes. Note that there, at first, seems to be a mismatch between rate classes because only Residential customers can receive negative demand charge when that customer has a small demand higher than zero but lower than its reference demand ( $D_r$ ). However, residential customers are charged in ENO’s legacy rates, at 20% higher cost-of-service volumetric rates for kWh than the same rates applied to non-residential customers.<sup>111</sup> Because residential customers pay a 20% higher “cost-of-service” for electricity delivery compared to commercial customers to be equitable, the rolling out of a mandatory residential CLEPm demand charge should also be coupled with a reset of the residential rate to match the average non-residential rate for the cost-of-service rate for electricity delivery, i.e., change a charge to \$0.05/kWh from \$0.06/kWh.

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<sup>111</sup> ENO’s published rates at ... and .... assert that after paying the fixed charge = connection fee, residential customers pay \$0.06/kWh for cost-of-service while non-residential customers pay \$0.05 / kWh.



**11. What financial reserve in ENO’s cashflows pays for CLEPm?**

That is not only the wrong question, but also is not the rationale for demand charges nor the way to allocate demand charges. ENO, like most utilities around the world, has imposed demand charges to accommodate the fact that “cost-causation” principles require that a customer who, more than the average customer, imposes costs on the utility to provide for peak demands, should be charged as much as reasonably appropriate to properly allocate the marginal increase in cost caused by his unusually large demand at such times.<sup>112</sup>

**12. What part of ENO’s fiscal plant does CLEPm synergistically and economically support and/or supplant?**

CLEPm provides the cashflow to support the transmission and distribution system assets for and in service to the delivery of power to customers during PUDH. For most utilities, this is the “Distribution System” but ENO has one retail customer, APC, that takes its electricity directly from a transmission line. CLEPm is applicable to APC as well as any assets that provide electricity within the region where ENO provides electricity delivery services to its retail customers. Similarly, a community solar plant can only receive beneficial cashflows from CLEPm if it were connected to the distribution system or proximal to the distribution system but connected to the transmission system and within the region assigned to ENO’s jurisdiction to provide electricity consumption services to a region.

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<sup>112</sup> *It is problematic that residential customers are not charged for demand because, as Jim Lazar’s Guide points out, utility peak demand is overwhelmingly caused by residential customers because: 1) the average utility customer base is 90% residential; and 2) residential AC demand in the afternoon and evening drives the summer utility peak, and residential electric heating demand at night drives the winter utility peak.* Is Footnote 10, page 7 of the Direct Testimony.

**13. How is CLEPm calculated?**

$CLEPm = q * (Dr - Da) * \$50$ , where  $q$  is the utility regulator determined percent (initially set at 95%) that is allocated to the ratepayer,  $Dr$  is the reference demand (only defined greater than zero for residential ratepayers, otherwise  $Dr = 0$ ),  $Da$  is the actual average demand during the PUDH for that month. Note that when CLEPm is greater than zero, it pays a reward to the CLEP customer. If the “customer” is a net generator or supplier to the utility, then  $Da$  is negative and this makes CLEPm positive. This provides the algorithm to pay partial owners of Community Solar farms to receive income from CLEPm. It also pays commercial customers for their “negative demand” = when and if they are net power producers on average during PUDH. All of this happens throughout all CLEP customers at the same rate: \$50 /kW-m but only during the 5 months a year when PUDH happen.

**14. How is CLEPm like and unlike a traditional demand charge? which is synergistic with: What is wrong with traditional demand charges that CLEPm fixes?**

CLEPm is different from traditional demand charges in two ways: Only after smart meters can CLEPm be rolled out. Because before smart meters, meters were only read monthly, the best that could be done was base demand charges on maximum demand during the last month. CLEPm focuses upon demand charges/rewards based upon WHEN IT MATTERS, i.e., when demand is nearly coincident with the utility’s annual peak demand. As explained above in #4, it is not equitable to charge for demand at times outside of PUDH. Moreover, by charging and paying at the full Cost-Causation defined magnitude for demand, the customer will receive the right price signal to inform and properly finance equipment needed to permanently avoid demanding electricity excessively during PUDH.

**15. In the presence of smart meters, why is it a violation of FERC’s cost-causation order for any ratepayer to be i) excused from paying a demand charge, ii) have a time-independent demand charge or iii) some customers to have a different demand charge in their rate design than others?** This question was answered in the previous answer.

**The following is a summary of the key arguments for Point 7.**

1. CLEPm is defined =  $q * (Dr - Da) * \$50$ . Where  $q$  is a utility regulator assigned "percent" and BSI recommends  $q = 95\%$  initially.  $Dr$  is the *reference* demand and is "custom" set  $> 0$  for each residential customer and set = 0 otherwise.  $Da$  is the *actual* average demand during PUDH. And the \$50 value conforms to the explanation in #3 below. CLEPm is a charge when  $CLEPm < 0$  and CLEPm is a payment to the customer when  $CLEPm > 0$ .
2. CLEPm is the "demand charge" part of CLEP. A customer "pays" or "is paid" CLEPm according to his average demand during peak utility demand hours (PUDH)<sup>113</sup>.
3. The \$50 factor in CLEPm's definition sets CLEPm's magnitude to be the same annual demand charge in \$/kw-y paid by the average commercial customer.
4. Non-residential customers and Community Solar farms can only receive income from CLEPm in the case that on average, electricity flows from that customer or solar farm to ENO during PUDH, i.e., if average demand for electricity from ENO exceeds supply of electricity to ENO during PUDH, CLEPm creates a CHARGE or obligation to ENO, otherwise, such customers or solar farms are paid according to CLEPm's definition.
5. Residential customers get an extra opportunity to receive income from CLEPm not available to non-residential customers. Although MBK's Direct Testimony provides two ways for how this value is assigned, **REFERENCE DEMAND** is a specifically chosen kW value,  $Dr$  (reference demand), greater than zero (usually between 1 and 5 kW for the most common residential situations). If the actual average demand for a residence,  $Da$ , is below this value, CLEPm will pay according to the

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<sup>113</sup> Peak Utility Demand Hours (PUDH), area defined in MBK's direct testimony in footnote 15 on page 13, although not with that name: "... are the roughly 500 to 600 hours in the year when ENO's demand is potentially near ENO's annual peak demand and initially set to be all hours within May through Sept, M-F, 2pm to 7pm." on page 14.

difference between the actual average demand and this value, i.e., CLEPm pays proportionately to  $D_r - D_a$ .

6. CLEPm pays what we call a "*negative demand charge*", i.e., a payment to the customer or discount on the ENO + CLEP bill, if:

Case 1. the average demand is negative, i.e., average power flow is towards ENO,

Case 2: the facility is a generator, like a solar farm, or

Case 3: the customer is a residence, and the *actual* average demand is less than the *reference* demand.

Otherwise CLEPm is a charge.

**Point 8: What are CLEPm and CLEP5 and how do they Extinguish Cross Subsidies?**<sup>114</sup>

**1. CLEPm Reward\$ to Arrest Demand-Cost-Shifting**

Customer Lowered Electricity Price, (CLEP), is much more than a very dynamic, bidirectional time-of-use rate; it is more than a bidirectional real time rate—all because of CLEPm.

$$\text{CLEP} = \text{CLEPm} + \sum \text{CLEP5}$$

Although our legacy Demand Charges **ALREADY COST US \$120/KW-y**, we still need to know in which months should we request payment and what times are most appropriate to measure demand?

Equity, fairness and indeed FERC’s cost causation rule indirectly asserts that we should only charge for average, near-coincident demand, i.e., near our utility’s peak demand times.

Define Peak Utility Demand Hours (PUDH) to be the hours which will, with 99% probability, contain the utility’s annual peak demand. The utility regulator sets PUDH to last year’s hours that exhibit at least 80% of this annual peak to produce a reasonably contiguous set of at least 500 hours a year. At first, let’s set PUDH as May – September, weekdays, 2 to 7 PM.

**CLEPm** is the monthly demand charge part of CLEP. Let **d** = average demand during the roughly 100 hours in PUDH in the current month.

Because AC-dominated, average demand is slightly less than 1/2 building peak demand.<sup>115</sup>

=>

$\$50 * \mathbf{d}$  paid five times/y is roughly = \$120/KW-y, and

CLEPm should be =  $\$50 * \mathbf{d}$ .

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<sup>114</sup> The effect to extinguish cross subsidies within a rate class is otherwise unknown in utility regulation.

<sup>115</sup> Because AC’s are off more than half of each hour they operate.

*Reference Demand* =  $D_r$  = the average demand a customer should have. RESNET implicitly has a definition for homes. BSI knows of no way to calculate a *reference* demand for other customers. Because residences have a reference demand,  $D_r > 0$ , set their demand reward at

$$CLEP_m = \$50 * (D_r - D_a), \text{ where } D_a \text{ is the } \textit{actual} \text{ average demand during PUDH.}$$

For non-residential customers, set  $D_r = 0$ .

Note: CLEP<sub>m</sub> lowers ENO + CLEP bills if  $d$  is low enough and raise bills, if  $d$  is too high.

To pay administrative costs and share savings with non-participants set  $q = 95\%$  and reset  $CLEP_m = q * CLEP_m$ .

$$CLEP_m = q * \$50 * (D_r - D_a)$$

We say **CLEP<sub>m</sub> Reward\$ to Avoid Demand-Cost-Shifting** and does this most equitably.

## 2. CLEP<sub>5</sub> Reward\$ to Arrest Energy-Cost-Shifting

When a customer buys a kWh, ENO must make or purchase electricity. Because ENO is a member of MISO’s wholesale electricity market, ENO must buy from MISO or make it cheaper. Either way, whether set by MISO for purchase by ENO or set by ENO for sale to MISO, the MISO price establishes, i.e., sets or records, the “cost-of-energy” for that kWh.<sup>116</sup>

The “cost” of all electricity whether or not sold by MISO to ENO could be called “Total Cost-of-Energy” (CoE) for that month.<sup>117</sup> Because MISO prices reset every five minutes as does the number of kWhs purchased, ENO’s

$$\textit{Total cost of energy, } \underline{CoE} = \sum (N_i * w_i),$$

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<sup>116</sup> Note that “cost-of-energy” really means “price of electricity”. Sorry! I didn’t name this *standard utility jargon*!! ENO does this transaction roughly 1 billion times a month.

<sup>117</sup> While “CoE” refers to *Total Cost of Energy* with the underline; a few sentences later “CoE” without the underline refers to *weighted average Cost of Energy*. Because CoE is recalculated monthly, CoE is a monthly weighted average.

where  $N_i$  and  $w_i$  are the number of kWhs purchased by all ENO customers and the MISO wholesale price during each,  $i^{\text{th}}$  5-minute period of that month, respectively.<sup>118</sup> **Total** CoE divided by the number of kWhs purchased to provides the

$$\text{weighted average cost of energy, CoE} = \frac{\text{CoE}}{\sum N_i} = \frac{\sum (N_i * w_i)}{\sum N_i}.$$

CoE is a significant part for every ENO customer’s electricity price. This is because a residential electricity bill for ENO for a month is primarily

$$\text{ENO BILL} = \# \text{ of kWhs purchased that month} * (\text{CoE} + \text{CoS}),$$

where CoS is the cost-of-service per kWh (established in a previous rate case).<sup>119</sup>

Each customer’s electricity purchases lower or raise CoE; if more electricity is purchased when the prices are low, CoE will be lower and conversely. For example, suppose last month’s CoE was \$0.03/kWh and your purchases during that month had a weighted average wholesale price of \$0.025/kWh, then you helped lower CoE last month. How much did you lower CoE? That depends upon how many kWhs you purchased. Suppose you were near average for a resident in NOLA and purchased nearly 1000 kWh. If that case, your lowered CoE for ENO by about  $1000 * (\$0.03 - \$0.025) = \$5.00$ .

With legacy electricity pricing, you get no benefit from your largess—but, as a result, you subsidized all customer’s electricity purchases by \$5 that month.<sup>120</sup> You caused an Energy-Cost-Shift onto yourself of \$5.00. Conversely, if your purchases had a weighted average wholesale price of \$0.035/kWh then you helped to raise CoE for last month and you would be “guilty” of a \$5 energy-cost-shift onto other customers.

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<sup>118</sup> There are roughly  $12 \times 24 \times 30 = 15,000$  five-minute intervals in a month.

<sup>119</sup> All the preceding assertions on this page were explained in MBK’s Direct Testimony on pages 8 through 14, although the word “weighted” was accidentally left out of that discussion.

<sup>120</sup> This effect is exactly why this rate design is called *Customer Lowered Electricity Price*.

Your energy-cost-shift during any 5-minute period is easily calculated to be:

$$\text{ICS}(i) = \text{Individual Cost Shift during the } i^{\text{th}} \text{ 5-minute period} = n_i * (\text{CoE} - w_i),$$

where  $n_i$  is the number of kWhs you purchased and  $w_i$  is the MISO price during the  $i^{\text{th}}$  5-minute period of that month. If  $\text{ICS}(i) > 0$ , the cost shift was onto you because you lowered CoE; conversely, when  $\text{ICS}(i) < 0$ , the cost shift was onto others.

CLEP5 is defined to be  $\mathbf{p} * \text{ICS}(i)$  and is the amount you should be paid as a *thank you* from all your fellow customers for lowering their price of electricity simply because you lowered CoE. BSI recommends that  $\mathbf{p}$  at first be set to 95%.

Thus, your monthly

$$\text{CLEP5 income is} = \mathbf{p} * \sum \text{CLEP5} = \mathbf{p} * \sum (\text{CoE} - w_i)$$

and CLEP5 rewards you for shifting costs onto yourself in a manner that is directly proportional to how much you did that, and similarly, penalizes you for the converse effect.

We say that ***CLEP5 reward\$ to avoid Energy-Cost-Shifting*** in a manner almost equal to the economic value of that shift and thus CLEP5 conforms to FERC's cost-causation ruling.



## Point 9: Is CLEP the “cure all” or overall solution?

The following are many of the challenges facing or faced by Council and/or its Utility Committee since Hurricane Katrina (that we know about) that we believe that CLEP can remedy:

1. Regulators to follow FERC’s cost causation regulation which is written to avoid cross subsidies between and within rate classes. Cost Causation is intended to promote fair electricity prices such that each ratepayer bears all cost attributable to its demand for service. 1992.<sup>121</sup>

2. The utility to minimize electricity outages & for Regulators to assess financial penalties for reliability deficiencies where appropriate. 1998.<sup>122</sup> August 10, 2017.<sup>123</sup> October 31, 2018.<sup>124</sup>

3. Promote Net Energy Metering (NEM) Sep 21, 2006.<sup>125</sup> March 28, 2019.<sup>126</sup>

4. Minimize suffering, dislocations, deaths and economic losses in the advent of the next storm by incentivizing the implementation of sustainable and resilient homes; in compliance with Standard of Sustainable Homes (SOS) ... to have the ability to store electricity for later use in times of need ... Nov 2, 2006.<sup>127</sup>

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<sup>121</sup> Under cost causation, “all approved rates [must] reflect to some degree the costs actually caused by the customer who must pay them.” *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992).

<sup>122</sup> Council Resolution **R-99-433** also advised ENO that the assessment of financial penalties were to be determined and implemented annually based upon a Council finding that the reliability achieved annually by ENO in each of its networks, as defined in ENO’s remediation plans, failed to achieve the level of reliability proposed by ENO, and ENO’s reliability performance for each of its networks were to be measured by comparing ENO’s actual SAIFIs achieved each year in comparison to those SAIFIs projected to be achieved by ENO in its network remediation plans

<sup>123</sup> **R-17-427**, 8/10/2017, **ESTABLISH MINIMUM ELECTRIC RELIABILITY PERFORMANCE STANDARDS AND FINANCIAL PENALTY MECHANISMS**

<sup>124</sup> **R-18-475**, 10/31/2018, **PRUDENCE INVESTIGATION REGARDING ENO’s SERVICE DISRUPTIONS**

<sup>125</sup> [https://cityofno.granicus.com/MetaViewer.php?view\\_id=7&clip\\_id=313&meta\\_id=65297](https://cityofno.granicus.com/MetaViewer.php?view_id=7&clip_id=313&meta_id=65297), **R-06-402**, Sep 21, 2006 NEM was initiated. NEM was revised by R-10-143, Mar 25, 2010.

<sup>126</sup> ENO states its work in that docket demonstrated that the existing NEM policy of providing net metered customers a 1:1 retail credit on their bills for the energy they export to the grid, regardless of whether that energy is needed at the time, is inherently inequitable because it causes a shift in costs from NEM customers to all others. **R-19-111**, 3/28/2019.

<sup>127</sup> **ORDINANCE, CITY OF NEW ORLEANS, CITY HALL: \_November 2, 2006, CALENDAR NO. \_26,294 BY: COUNCILMEMBERS THOMAS, HEAD, LEWIS AN ORDINANCE** authorizing the City of New Orleans to amend the Building Code (11625 MCS Uniform Building Code) establishing standards for the City of New Orleans by creating a new Chapter entitled “Sustainability “ for new residences to be built so that New Orleans residents and members of the construction industry can utilize advanced construction techniques which result in durable, high-quality homes that are

5. Promote Energy Efficiency (EE) in the rate design. Dec 6, 2007.<sup>128</sup>
6. Promote EE via Demand side Management (DSM). Dec 6, 2007.<sup>129</sup>
7. Advance Integrated Resource Planning. 2008.<sup>130,131</sup>
8. Create Energy Smart as ENO's DSM, 2009.<sup>132</sup>

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certifiable and encouraged by the City of New Orleans. ... SOS construction standard will drastically lower energy use in a home,... Sustainability is functionally achieved when a dwelling is designed, built and commissioned to collect, transfer, store and ultimately convert naturally occurring environmental phenomena into a safe, healthy and comfortable indoor living environment, within the prescribed human comfort zone for at least 30 generations. ...”  
<https://studylib.net/doc/7815419/standard-of-sustainability--sos->

<sup>128</sup> **R-07-600**, “Resolution Asserting the Commitment of the Council of the City of New Orleans to Energy Efficiency and the Development of Viable Energy Efficiency Programs.” December 6, 2007.

<sup>129</sup> IBID.

<sup>130</sup> **Integrated Resource Planning UD-08-02** By incorporating least-cost and Integrated Resource Planning (IRP), a utility is required to report its load and resource forecast for a specified period, and utilize the least-cost resource mix, including both supply and demand-side options. Read more about IRP on ACEEE, <https://www.all4energy.org/ud-08-02.html>

<sup>131</sup> “WHEREAS, it was the Council's desire to have uniform Integrated Resource Planning ("IRP") guidelines applicable to all electric utilities in its jurisdiction; and WHEREAS, to that end, on June 5, 2008, the Council issued Resolution No. **R-08-295**, Resolution Regarding Proposed Rulemaking to Establish IRP Components and Reporting requirements for ENO; “ R-8-295

<sup>132</sup> [https://www.all4energy.org/uploads/1/0/5/6/105637723/2017\\_09\\_29\\_ud-08-02\\_eno\\_app\\_for\\_supp\\_and\\_amended\\_energy\\_smart\\_plan\\_for\\_py\\_7-9\\_exhibit\\_12017\\_09\\_29\\_ud-08-02\\_eno\\_app\\_for\\_supp\\_and\\_amended\\_energy\\_smart\\_plan\\_for\\_py\\_7-9\\_exhibit\\_1.pdf](https://www.all4energy.org/uploads/1/0/5/6/105637723/2017_09_29_ud-08-02_eno_app_for_supp_and_amended_energy_smart_plan_for_py_7-9_exhibit_12017_09_29_ud-08-02_eno_app_for_supp_and_amended_energy_smart_plan_for_py_7-9_exhibit_1.pdf)

In 2009, Council Resolution **R-09-136** established the criteria for ENO to implement the Energy Smart Plan. • In July 2009, ENO submitted a filing in which it detailed the specifics of the design and funding levels for programs to be included in the Energy Smart Plan programs. • In September 2009, the Council approved the Energy Smart Plan programs as designed and found ENO's programs to be just, reasonable and in the public interest; including funding levels and allocations, and goals and targets recommended by the Company.2 • In April 2011, ENO and CLEAResult implemented the Energy Smart Plan and began offering programs to ENO electric customers. ENO filed status reports periodically as outlined and required by Council Resolution **R-11-52**. Representatives of CLEAResult and ENO have made filings disclosing quarterly and annual results on the progress of the Energy Smart programs. • In October 2012, ENO submitted its Integrated Resource Plan (“IRP”) which outlined an optimal level of DSM for the near future of New Orleans. • On April 1, 2013, ENO filed its Supplemental Implementation and Cost Recovery filing which proposed a suite of energy efficiency programs and cost recovery mechanism for the 2014-2017 period. • On August 8, 2013, the Council approved Resolution **R-13-271** which required ENO to finalize an agreement with NOLA Wise which would secure funding to sustain NOLA Wise from September 2013 – March 2014. ENO complied on August 26, 2013 by filing its agreement with NOLA Wise with the Council. • On October 10, 2013, the Council approved Resolution **R-13-363** which found “it in the public interest to provide the necessary funding to continue the existing Energy Smart programs to assure continuity of energy efficiency programs in New Orleans through the end of calendar year 2014. • On April 10, 2014, and November 20, 2014, respectively, Resolutions **R-14-122** and R-14- 509 extended the then-current programs for through Program Year 4. **R-14-509** also required ENO to file an implementation plan for Program Years 5 and 6. ENO complied with this requirement on December 29, 2014. • Council Resolutions **R-15-140** and **R-15-499** approved the programs and budgets for Program Years 5 and 6. Resolution R-15-140 also required ENO to issue a Request For Proposals (“RFP”) for a Third-Party Administrator for Program Years 7-9. Pursuant to the Resolution, and by way of RFP, ENO selected Chicago Bridge & Iron Environmental and Infrastructure, Inc. (“CB&I”) to perform as TPA, Accelerated Innovations (“AI”) to perform as Behavioral Program Implementer and ADM Associates (“ADM”) as Third Party Evaluator. • Council Resolution **R-17-31**

9. Reduce Electricity Bills. November 20, 2014.<sup>133</sup> January 26, 2017.<sup>134</sup>
10. Reduce production and distribution costs incurred by ENO while supporting their desire to improve profits. January 26, 2017.<sup>135</sup>
11. Decouple Utility income with the success of DSM. April 2016.<sup>136</sup>
12. Re-align Energy Smart as controlled by ENO to remove any preconceived Bias against Renewables. 2016.<sup>137</sup>
13. ENO should overcome its inability to accomplish IRP work. Feb 23, 2017. <sup>138,139,140</sup>

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provided conditional approval of CB&I, approved AI and ADM required ENO to create an Implementation Plan for Program Years 7-9. • The Resolution approved, with exception to the budgets, the programs proposed in ENO’s February 13, 2017 Implementation Plan. The Resolution also required ENO to host at least three technical conferences with the Advisors and stakeholders with hopes of resolving certain matters including, but not limited to, inconsistencies in the budget and pilot program expansion. • On July 7, 2017, CB&I received approval from the Louisiana Secretary of State for an Amendment to its Articles of Incorporation to change its name to APTIM Environmental and Infrastructure, Inc. (“APTIM”). ENO notified the Council’s Advisors and the Council’s Utility Regulatory Office of this name change on July 11, 2017.<sup>3</sup> • On September 19, 2017, ENO filed the New Orleans Technical Reference Manual (“NOTRM”) v 1.0 with the Council and distributed the NOTRM to parties to Council Docket No. UD-08-02.

<sup>133</sup> **R-14-511**, November 20, 2014, **RESOLUTION REGARDING PROPOSED RULEMAKING TO ESTABLISH INTEGRATED RESOURCE PLANNING COMPONENTS AND REPORTING REQUIREMENTS FOR ENERGENCY NEW ORLEANS, INC.**

<sup>134</sup> **R-17-32**, January 26, 2017, **RESOLUTION REGARDING PROPOSED RULEMAKING TO ESTABLISH INTEGRATED RESOURCE PLANNING COMPONENTS AND REPORTING REQUIREMENTS FOR ENERGENCY NEW ORLEANS, INC.**, p 3.

<sup>135</sup> IBID.

<sup>136</sup> **R-16-103, RESOLUTION AND ORDER ESTABLISHING GUIDELINES FOR DESIGN OF A DECOUPLING PROGRAM FRO ENERGENCY NEW ORLEANS, INC.**” April 2016.

[https://www.all4energy.org/uploads/1/0/5/6/105637723/2016\\_09\\_06\\_ud-08-02\\_eno\\_summary\\_of\\_ill\\_examples\\_of\\_a\\_basic\\_decoupling\\_mechanism.pdf](https://www.all4energy.org/uploads/1/0/5/6/105637723/2016_09_06_ud-08-02_eno_summary_of_ill_examples_of_a_basic_decoupling_mechanism.pdf)

<sup>137</sup> **“Bias Against Renewables** Despite consistently strong statements by the City Council, intervenors, and the community that renewable energy ought to play a significant part in how New Orleans meets its energy needs, Entergy’s preferred portfolio includes no renewable energy resources for 20 years.” 2016. [https://www.all4energy.org/uploads/1/0/5/6/105637723/ud-08-02\\_aae\\_seriously\\_flawed\\_report\\_on\\_nola\\_irp.pdf](https://www.all4energy.org/uploads/1/0/5/6/105637723/ud-08-02_aae_seriously_flawed_report_on_nola_irp.pdf)

<sup>138</sup> [https://www.all4energy.org/uploads/1/0/5/6/105637723/ud-08-02\\_aae\\_seriously\\_flawed\\_report\\_on\\_nola\\_irp.pdf](https://www.all4energy.org/uploads/1/0/5/6/105637723/ud-08-02_aae_seriously_flawed_report_on_nola_irp.pdf)

2016. Seriously Flawed: What Went Wrong with Entergy’s 2015 Integrated Resource Plan

<sup>139</sup> Council in Resolution No. **R-10-142** concluded that its experience with the Least Cost Integrated Resource Plan (“LCIRP”) Ordinance had proven to be costly, unduly burdensome, and inefficient; and WHEREAS, it was the Council’s desire to have uniform Integrated Resource Planning (“IRP”) guidelines applicable to all electric utilities in its jurisdiction; and WHEREAS, to that end, on June 5, 2008, the Council issued Resolution No. **R-08-295**, Resolution Regarding Proposed Rulemaking to Establish IRP Components and Reporting requirements for ENO; Jan 26, 2017. **R-17-30**

<sup>140</sup> **R-17-100**, Feb 23, 2017, Acknowledging the failure of the 2015 ENO IRP.

14. Minimize consultant fees by lowering the expense, time, complexity and controversy in regulatory decision making. 2017.<sup>141, 142</sup>

15. Properly orient DSM towards Demand Response (DR). April 27, 2017.<sup>143</sup>

16. Meet the Paris Climate Change Treaty Obligations; Lower the Carbon Footprint of the City and facilitate individual actions; Promote solutions that can have a novel and substantial impact on slowing down the causes of Global Warming, Promote the public welfare, health & economy. Embrace both new physical as well as economic technologies that can grow the economy while ameliorating the causes of Global Warming. Improve or at least not degrade human comfort. Build durability against the current or worsening climate. July 2017.<sup>144</sup>

17. Minimize electricity outages & assess financial penalties. 1998.<sup>145</sup> August 10, 2017.<sup>146</sup>

18. Rollout AMI cost effectively. 1/12/2017.<sup>147</sup> April 5, 2018.<sup>148</sup>

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<sup>141</sup> IBID.

<sup>142</sup> **M-17-217**, CURO Protocols.

<sup>143</sup> [https://www.all4energy.org/uploads/1/0/5/6/105637723/2017\\_09\\_29\\_ud-08-02\\_eno\\_app\\_for\\_supp\\_and\\_amended\\_energy\\_smart\\_plan\\_for\\_py\\_7-9\\_exhibit\\_12017\\_09\\_29\\_ud-08-02\\_eno\\_app\\_for\\_supp\\_and\\_amended\\_energy\\_smart\\_plan\\_for\\_py\\_7-9\\_exhibit\\_1.pdf](https://www.all4energy.org/uploads/1/0/5/6/105637723/2017_09_29_ud-08-02_eno_app_for_supp_and_amended_energy_smart_plan_for_py_7-9_exhibit_12017_09_29_ud-08-02_eno_app_for_supp_and_amended_energy_smart_plan_for_py_7-9_exhibit_1.pdf), “Additional topics of discussion included (i) the Advisors’ questions concerning (a) program saturation levels; (b) demand response; (c) program year 6 spending; and (d) models which were used to create the budgets; (ii) the Alliance’s questions and discussion concerning (a) the Direct Load Control program; (b) the Behavioral Program; (c) EM&V; and (d) market transformation; and (iii) a discussion of BSI’s questions and comments.”

<sup>144</sup> <https://www.nola.gov/resilience/climate-action/>, July 2017

<sup>145</sup> Council Resolution **R-99-433** also advised ENO that the assessment of financial penalties were to be determined and implemented annually based upon a Council finding that the reliability achieved annually by ENO in each of its networks, as defined in ENO’s remediation plans, failed to achieve the level of reliability proposed by ENO, and ENO’s reliability performance for each of its networks were to be measured by comparing ENO’s actual SAIFIs achieved each year in comparison to those SAIFIs projected to be achieved by ENO in its network remediation plans

<sup>146</sup> **R-17-427**, 8/10/2017, **ESTABLISH MINIMUM ELECTRIC RELIABILITY PERFORMANCE STANDARDS AND FINANCIAL PENALTY MECHANISMS**

<sup>147</sup> **R-17-7**, 1/12/2017, **APPROVAL TO DEPLOY ADVANCED METERING INFRASTRUCTURE**

<sup>148</sup> **R-18-99**, **RESOLUTION AND ORDER DIRECTING ENTERGY NEW ORLEANS, LLC TO ACCELERATE IMPLEMENTATION OF ITS ADVANCED METERING INITIATIVE**, April 5, 2018.

19. Regarding new means to old ends: confirm none of non-participants test, total resource costs, total societal costs, or ratepayer-impact measures fail. January 26, 2017<sup>149</sup>

20. Purchasing of cheap electricity and avoiding purchasing expensive electricity from MISO. March 8, 2018.<sup>150</sup>

21. Promote maintenance and or growth of local industries that are related to energy use, maintenance and production. March 8, 2018.<sup>151</sup>

22. Minimize electricity outages & assess financial penalties. 1998.<sup>152</sup> August 10, 2017.<sup>153</sup> October 31, 2018.<sup>154</sup>

23. Net Energy Metering (NEM) Sep 21, 2006.<sup>155</sup> March 28, 2019.<sup>156</sup>

24. Promote Community Solar. March 28, 2019.<sup>157, 158</sup>

25. Promote fair electricity prices. March 28, 2019.<sup>159</sup>

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<sup>149</sup> **R-17-30**, 1/26/2017, p4, *Evaluate all demand-side resources by conducting benefit-cost analyses which include the Total Resource Cost ("TRC") test as well as the Ratepayer Impact Measure ("RIM") test, and consider any directly quantifiable environmental externalities;*

<sup>150</sup> NOPS Resolution, **R-18-65**, 3/8/2018, p 74.

<sup>151</sup> NOPS Resolution, **R-18-65**, 3/8/2018, p 11.

<sup>152</sup> Council Resolution **R-99-433** also advised ENO that the assessment of financial penalties were to be determined and implemented annually based upon a Council finding that the reliability achieved annually by ENO in each of its networks, as defined in ENO's remediation plans, failed to achieve the level of reliability proposed by ENO, and ENO's reliability performance for each of its networks were to be measured by comparing ENO's actual SAIFIs achieved each year in comparison to those SAIFIs projected to be achieved by ENO in its network remediation plans

<sup>153</sup> **R-17-427**, 8/10/2017, **ESTABLISH MINIMUM ELECTRIC RELIABILITY PERFORMANCE STANDARDS AND FINANCIAL PENALTY MECHANISMS**

<sup>154</sup> **R-18-475**, 10/31/2018, **PRUDENCE INVESTIGATION REGARDING ENO's SERVICE DISRUPTIONS**

<sup>155</sup> [https://cityofno.granicus.com/MetaViewer.php?view\\_id=7&clip\\_id=313&meta\\_id=65297](https://cityofno.granicus.com/MetaViewer.php?view_id=7&clip_id=313&meta_id=65297), R-06-402, Sep 21, 2006 NEM was initiated. NEM was revised by R-10-143, Mar 25, 2010.

<sup>156</sup> ENO states its work in that docket demonstrated that the existing NEM policy of providing net metered customers a 1:1 retail credit on their bills for the energy they export to the grid, regardless of whether that energy is needed at the time, is inherently inequitable because it causes a shift in costs from NEM customers to all others. **R-19-111**, 3/28/2019.

<sup>157</sup> 3/28/2019, **R-19-111, RESOLUTION & ORDER ESTABLISHING RULES FOR COMMUNITY SOLAR PROJECTS, & R-18-223**

<sup>158</sup> Advisors do not believe that the establishment of Community Solar Rules should preclude any party from proposing specific projects that differ from those rules to the Council for the Council's consideration. p 31, **R-19-111**.

<sup>159</sup> **R-19-11**, p 3, March 28, 2019, **RULEMAKING PROCEEDING TO ESTABLISH RULES FOR COMMUNITY SOLAR PROJECTS**

26. Promote Market Transformations. March 28, 2019.<sup>160</sup>
27. Promote grid scale solar. July 16, 2019.<sup>161, 162</sup>
28. Avoid buying fossil fuel (FF) powered electricity generation.<sup>163</sup>
29. Get re-elected.
30. Follow Open Meetings' Laws and operate within the appropriate rules of procedure.
31. Grow the percentage of renewable energy without accidentally needing more FF peaking plants in order to maintain voltage during periods of low solar or wind power production.
32. Avoid approving already obsolete technology or about to become obsolete technology.
33. Lower the electricity bills of large industries and buildings.
34. Incent demand response. July 2019.<sup>164</sup>
35. Promote electric vehicle use.
36. Promote the installation of all parts of DER, on both sides of the meter.<sup>165, 166</sup>
37. Promote the use of aggregators.
38. Promote the help of Energy Service companies.
39. Avoid accomplishing these goals at the detriment of human health or wildlife.
40. Promote microgrids.
41. Greatly increase the percentage of electricity and thermal storage on both sides of the meter.

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<sup>160</sup> P. 64. **R-19-11**, p 3, March 28, 2019, **RULEMAKING PROCEEDING TO ESTABLISH RULES FOR COMMUNITY SOLAR PROJECTS**

<sup>161</sup> Renewable Portfolio Standard (RPS) Rulemaking, **UD-19-01, Resolution and Order establishing a docket and opening a rulemaking proceeding to establish Renewable Portfolio Standards (RPS)**,

<https://www.all4energy.org/ud-19-01.html>

<sup>162</sup> [https://thelensnola.org/2019/07/16/council-environmental-coalition-announce-plans-to-increase-citys-renewable-energy-portfolio/?utm\\_source=The+Lens&utm\\_campaign=4d564d5953-EMAIL\\_CAMPAIGN\\_2019\\_07\\_16\\_10\\_45&utm\\_medium=email&utm\\_term=0\\_bbcdaba031-4d564d5953-407209061](https://thelensnola.org/2019/07/16/council-environmental-coalition-announce-plans-to-increase-citys-renewable-energy-portfolio/?utm_source=The+Lens&utm_campaign=4d564d5953-EMAIL_CAMPAIGN_2019_07_16_10_45&utm_medium=email&utm_term=0_bbcdaba031-4d564d5953-407209061)

<sup>163</sup> **IBID.**

<sup>164</sup> **ENO's 2018 IRP**, page 48. July 2019.

<sup>165</sup> ENO's witnesses: Ericka Zimmerer and (see answer to [first part of Point 2](#)).

<sup>166</sup> BSI's Direct Testimony.

42. Accomplish goals in an integrated manner.
43. Promote innovations that can allow the city to become an international leader in energy.
44. Grow New Orleans' tourist industry.

## **CONCLUSIONS**

FYI to editors: The reason and the only reason why the following points are placed after the beginning of the Conclusions section is because their arguments are not fully supported by the Evidentiary Record.



Point 10: What other benefits can CLEP provide which were not addressed in the Evidentiary Record?

Although not fully evidenced during the rate case hearing, there are other benefits to CLEP that bear discussion, and which should be the subject of “judicial notice.”

As representatives of the City of New Orleans, the Council should be aware of the accelerating threat of climate change and sea level rise. Climate scientists assert that the window is closing to stop the worst effects of Global Warming. There exists a need to reduce Human Technologies’ carbon footprint by 45% by 2030.<sup>167</sup> Because CLEP incentivizes the reduction of CO<sub>2</sub>, it should be considered a weapon against Global Warming.

BSI believes the immediate adoption of CLEP and the development of a good track record will ultimately lead to CLEP’s adoption in other regulatory jurisdiction across the country and around the World.

Further, CLEP can support renewable energy industries in peril because of sun-setting tax credits:

- the Investment Tax credit is currently paying 30% of the first cost for solar installations, and
- the Production Tax Credit is currently \$0.022/kwh for every kwh placed on the grid for electricity generated by wind farms.

Both will have its subsidy diminished in 2020 and completely disappear by 2025.<sup>168</sup> CLEP can help rejuvenate financing for the solar and wind industries by producing ever-growing markets of customers who would greatly benefit from such low-cost electricity resources.

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<sup>167</sup> <https://www.nola.gov/resilience/climate-action/>, July 2017

<sup>168</sup> <https://www.jdsupra.com/legalnews/from-sunrise-to-sunset-phasing-out-the-35439/>

There exist also new economic development opportunities presented by CLEP. For example, Mike Hopkins, (who at the time was CEO of Ice-Energy, the manufacturer of Ice-Making Air Conditioners) stated that if the Council adopts CLEP, he would sweeten the deal and locate a local factory in NOLA.<sup>169</sup> Their technology can be set up as an ADD-ON to existing and installed Air Conditioner equipment.

Similarly, a host of other nascent technologies that have not found an economic niche are likely to want to setup shop here. Another good example is the enterprise of George Semmes et. al. which started on the corner of 1<sup>st</sup> street and Tchoupitoulas in New Orleans<sup>170</sup> and converts shipping containers into microgrids for export all around the world.

Another example is wind energy collection via Drone/Kites. At first glance, New Orleans is not a good place to exploit wind because near the ground, wind speeds are low. However, the extreme eastern end of NOLA is almost in the Gulf of Mexico where hundreds of feet up we can expect good collection opportunities.<sup>171</sup> Manufacturing can be coupled with job growth in general:

*“Investment in energy efficiency, renewable energy, distributed energy resources, demand response, and shifting of demand to non-peak hours. DER generate more jobs and local economic development per dollar than investment in traditional infrastructure, like peaking plants.”<sup>172</sup>*

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<sup>169</sup> Direct communication between Mike Hopkins to Andrew Touzzolo on July 30, 2018 by phone in the presence of mixed office visit and conference call in support Pres Kabacoff’s Charity Hospital Redevelopment project which was posed to install over a million dollars of ice-making AC’s. During this meeting Mike stated that should NOLA adopt CLEP, he would strongly consider building a manufacturing plant to locally build his equipment.

<sup>170</sup> <https://GpodAmericas.com> & <http://www.mysunvolt.com>

<sup>171</sup> <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/wind-velocity>

<sup>172</sup> <https://aceee.org/blog/2019/02/florida-could-add-135000-jobs>, [www.aee.net/articles/advanced-energy-gains-125000-jobs-in-2018-growing-twice-as-fast-as-u.s.-employment-overall](http://www.aee.net/articles/advanced-energy-gains-125000-jobs-in-2018-growing-twice-as-fast-as-u.s.-employment-overall), <https://www.thesolarfoundation.org/solar-jobs-census/> [https://www.epa.gov/sites/production/files/2018-07/documents/mbg\\_2-2\\_directelectricityimpacts.pdf](https://www.epa.gov/sites/production/files/2018-07/documents/mbg_2-2_directelectricityimpacts.pdf) <https://aceee.org/sites/default/files/Jobs%20Toolkit%203-8-19.pdf>

Further, sustainable microgrids are coming but financing them has been the challenge. CLEP meets this challenge, and according to Mike Hopkins, CLEP may be the best way to finance a sustainable microgrid.<sup>173</sup> This would put NOLA on the map for many purposes, such as eco-tourism.

Making New Orleans a more progressive city can be coupled with Pres Kabacoff's Spirit of Charity Proposal, which ends with:

***A District-wide Sustainable Microgrid (DSM):** As a microgrid, DSM is a small network of electricity users with a local source of supply, grid-connected but able to operate autonomously. DSM will harvest renewable energy from community solar and remote Iowa wind farms, store and resell electric and thermal energy, integrate electric vehicles, and deeply invest in state-of-the-art energy efficiency, and by these means, flip the electricity bill for a million s/f building from a \$1 million a year obligation to a \$600 thousand a year income. An innovative electricity rate fully finances all of the above—without subsidies, carbon taxes, etc., but—by fully engaging the wholesale electricity marketplace and brings with it economic benefits to all parties while advancing what may be the best thinking to arrest the causes of Climate Change... all at no cost but in fact: greater profits.<sup>174</sup>*

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<sup>173</sup><https://www.youtube.com/watch?v=PFmIpVhvfjc&list=PLAfYUNRlehhwOnIVpYIFf5WIXMposf3u3&index=7>

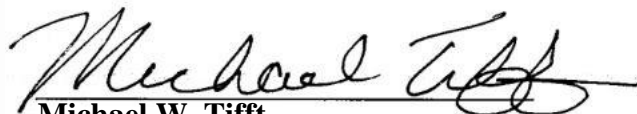
<sup>174</sup> *Spirit of Charity Innovation District*, Pres Kabacoff, HRI et. al., June 26, 2019,.

## Prayer for Relief

BSI respectfully requests that the New Orleans City Council direct Entergy New Orleans, Inc. to

1. Implement CLEP as two complementary CLEP5 and CLEPm rates and/or tariffs in the form and manner of the formulas set forth in Point 8 above, across all customer classes in a mandatory fashion.
2. Alternatively, BSI respectfully requests that the Council direct Entergy to implement CLEP as two complementary CLEP5 and CLEPm rates and/or tariffs in the form and manner of the formulas set forth in Point 8 above and to make them available to all customers who desire to avail themselves of CLEP on an OPT-IN basis.
3. Alternatively, BSI respectfully requests that the Council initiate a new docket, or sub-docket, to implement CLEP as soon as practical.

**RESPECTFULLY SUBMITTED:**



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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of **Building Science Innovators' Post Hearing Reply Brief** has been served by electronic mail and/or by U.S. mail, postage prepaid, on all parties on the Official Service List.

A handwritten signature in black ink, appearing to be "M. J. [unclear]", written over a horizontal line.

New Orleans, Louisiana this 26<sup>th</sup> day of July 2019

## Appendix 1. Resolution & Order Establishing Rules for Community Solar Projects

3/28/2019	R-19-111	1	<b>RESOLUTION &amp; ORDER ESTABLISHING RULES FOR COMMUNITY SOLAR PROJECTS</b>
3/28/2019	R-19-111	1	New Community Solar Rules only establishes payments at NEM for Low Income Residents and otherwise, for other customers, does not set remuneration at all. Myron went to this meeting & made a public comment: CLEP pays better than NEM... so you're underpaying both low-income and everyone else.
3/28/2019	R-19-111	1	Council has repeatedly expressed support for the efficient use of clean, sustainable technology to improve the quality of life for our citizens and businesses;
3/28/2019	R-19-111	2	on March 15, 2007, the Council adopted Resolution No. R-07-132, adopting for the first time Net Energy Metering (NEM) Rules for the City of New Orleans
3/28/2019	R-19-111	2	NEM program has proven to be popular in New Orleans and has resulted in over 37 MW of rooftop solar being installed in New Orleans
3/28/2019	R-19-111	2	Council believes there are many New Orleans residents who are interested in renewable resources but unable to participate in the NEM program for various reasons, including, but not limited to, because their roof is not a viable location for rooftop solar, they rent and do not own the building in which they live, they are unable to afford the cost of a rooftop solar system, or they are unable to make a long-term commitment to a solar unit
3/28/2019	R-19-111	2	Council wishes to expand the renewable options available to New Orleans residents, particularly those who are unable to participate in the NEM program
3/28/2019	R-19-111	2	City of New Orleans, Climate Action Plan for a Resilient New Orleans, at 27 (July 7, 2017), <a href="https://www.nola.gov/nola/media/Climate-Action/Climate-Action-for-a-Resilient-New-Orleans.pdf">https://www.nola.gov/nola/media/Climate-Action/Climate-Action-for-a-Resilient-New-Orleans.pdf</a>
3/28/2019	R-19-111	2	Resolution No. R-18-223, the Council sought comments on the Advisors' White Paper and stated that it believes that any rules established for community solar programs should adhere to the following principles: <ul style="list-style-type: none"> <li>• The rules should provide new renewable options to New Orleanians, with a particular focus on providing renewable options to those who are not eligible for rooftop solar on their own residences/businesses and to low-income customers. While the Council has no objection at this time to allowing those already participating in the NEM program to participate in community solar, the driving purpose of the rules should be to create options for those who are unable to participate in NEM.</li> </ul>
3/28/2019	R-19-111	3	The rules should be designed to allow customers to offset their own electric consumption, they should not be designed to allow customers to generate electricity for profit at the expense of their fellow ratepayers. The Council understands that most state rules regarding community solar contain this restriction, and that this restriction also assists in avoiding negative federal income tax and securities implications, as is discussed more fully in the Advisors' White Paper.
3/28/2019	R-19-111	3	The rules should leave as much flexibility as possible for developers to design community solar programs that they believe will be attractive to New Orleans citizens, consistent with the Council's responsibility to protect New Orleans citizens and to ensure the continued provision of safe, reliable, electric power to New Orleans at just and reasonable rates
3/28/2019	R-19-111	3	Because of the expectation of the citizens of New Orleans that the Council oversees the provision of electric service to them, particularly anything that may appear on their ENO bill, consumer protection standards must be adopted to ensure that consumers are treated fairly by developers and that their dealings with developers are transparent

3/28/2019	R-19-111	4	the Advisors reported that there are several areas of significant consensus among the parties, including treatment of low-income customers, consumer protections and enforcement thereof, transparency and reporting, safety and reliability, the appropriate treatment of ENO's community solar proposal in the Combined Rate Case, and the incorporation of community solar into ENO's triennial Integrated Resource Planning (IRP) analysis
3/28/2019	R-19-111	4	Advisors clarified that the purpose of the Advisors' Proposed Rules is to establish a clear and streamlined path to the development of community solar programs in the City of New Orleans that would allow developers to proceed with such projects without the need to petition the Council for approval of each individual project and await the outcome of that decision.
3/28/2019	R-19-111	4	Advisors Report Regarding Proposed Community Solar Rules, Docket No. UD-18-03 (Nov. 30, 2018) (Advisors Report).
3/28/2019	R-19-111	5	Definition of "Low-Income Customer" the Proposed Rules defined "Low-Income Customer" as a Customer whose gross annual household income is at or below 175% of the federal poverty level for the year of subscription or who is certified as eligible for any federal, state, or local assistance program that limits participation to households whose income is at or below 175% of the federal poverty limit;
3/28/2019	R-19-111	7	Proposed Rules would set aside 30% of the total Community Solar Capacity Limit for Community Solar Generating (CSG) Facilities that provide a minimum of 10% of their output to Low-Income Customers
3/28/2019	R-19-111	12	compromise proposed by the Advisors of requiring 50% of the capacity allowed under the Community Solar Rules adopted herein to be reserved for CSG Facilities providing at least 30% of their output to Low-Income Subscribers is a reasonable balance between encouraging low-income participation and encouraging more rapid development of community solar projects at least for the first three years of the program
3/28/2019	R-19-111	15	ENO argues that the current language of the Proposed Rules is susceptible to an interpretation that could result in other utility customers being charged with funding these incentives, and that this is troubling, because many of those other utility customers may also be Low-Income Customers;
3/28/2019	R-19-111	17	ENO argues that in the 2011, 2013 time period, there were numerous complaints and lawsuits related to unfair and unethical business practices carried out by rooftop solar providers and that these companies were able to take advantage of New Orleans residents because adequate consumer protections and safeguards were not put into place, there were no mechanisms for enforcement and oversight was neglected
3/28/2019	R-19-111	19	AAE does not recommend the addition of a set of prescribed penalties.
3/28/2019	R-19-111	19	Advisors agree that CURO should have oversight of the community solar consumer protections,
3/28/2019	R-19-111	20	AAE agrees with the Advisors that community solar should be opened to third-party developers of projects in New Orleans,
3/28/2019	R-19-111	26	its September 21, 2018 Combined Rate Case, <sup>124</sup> ENO proposed, inter alia, a Community Solar Offering, under which participants would voluntarily pay for a specific allocation of offsite solar PV projects, and in return for an upfront or ongoing payment, would receive a credit on their monthly electric bill, tied to the actual output of the solar photovoltaic (PV) project; <sup>125</sup> and
3/28/2019	R-19-111	27	The AAE argues that if such a 2 MW cap exists, it should apply to specific installations, not to a portfolio of projects such as that ENO proposed in the Combined Rate Case
3/28/2019	R-19-111	27	ENO argues that the efforts of the Proposed Rules to create a "level playing field" ignores the unique benefits that regulated utilities like ENO may be able to bring to a community solar offering that a non-regulated entity cannot bring
3/28/2019	R-19-111	28	ENO suggests that the Council consider pursuing parallel, non-mutually-exclusive, paths on community solar in this docket and in the Combined Rate Case and, in doing so, look to create multiple avenues through which New Orleans residents can support renewable resource development.

3/28/2019	R-19-111	28	ENO argues that the Proposed Rules provide a number of advantages and subsidies to third-party developers, who are not presently subject to Council regulation and oversight, at a significant potential cost to ENO and all of its customers, particularly with respect to which costs may and may not be recovered from ratepayers
3/28/2019	R-19-111	31	Advisors do not believe that the establishment of Community Solar Rules should preclude any party from proposing specific projects that differ from those rules to the Council for the Council's consideration
3/28/2019	R-19-111	31	However, the Advisors do recommend that to the extent the proposal is a community solar project that will not follow certain or all of the rules established in these proceedings, the entity proposing the project (including ENO) must demonstrate to the Council why deviation from these rules is more beneficial for New Orleans ratepayers than a program under the rules would bring.
3/28/2019	R-19-111	32	Council notes that it will view with disfavor proposals that are merely an attempt to evade the Council's Community Solar Rules. The Council would expect that proposals for renewable distributed generation projects with public participation would either conform to these rules, or demonstrate why the alternative proposal brings greater benefits than a proposal conforming to the Community Solar Rules would bring
3/28/2019	R-19-111	34	Air Products requests that the <b>costs of any Community Solar Program be recovered only on a demand basis and not on a per kWh basis</b>
3/28/2019	R-19-111	34	The Advisors state that it is unclear, however, whether in order to implement this, Air Products is suggesting that residential customers that do not have a demand charge should be eliminated from the payments or whether residential rates should be reformed to include a demand charge, which would be beyond the scope of this docket. For this reason, the Advisors do not believe that recovering charges related to the Community Solar Program solely through a demand charge is a feasible method of cost recovery.
3/28/2019	R-19-111	35	350 New Orleans argues that the subscription credits proposed by the Advisors are too low but offers no alternative proposal as to how such credits should be calculated
3/28/2019	R-19-111	35	The AAE argues that the <b>compensation policy for community solar should match that of existing solar NEM policy</b> in New Orleans.
3/28/2019	R-19-111	36	AAE argues that the principle of treating all customers generating renewable resources equitably requires that community solar customers receive the same compensation as NEM customers
3/28/2019	R-19-111	37	<b>Air Products strongly opposes the recommendation of the AAE for calculation of Subscriber bill credits based on the electric utility retail rate.</b> <sup>177</sup> Air Products argues that this would provide a massive subsidy to the Subscriber and would credit full retail value to the Subscriber even though most of the costs recovered in the retail rate would not be avoided.
3/28/2019	R-19-111	37	<i>This is not substantiated although widely believed. Many <b>Value of Solar</b> studies quoted in BSI's response to ENO's IRP provide studies to upset this presumption. Moreover, CLEP's dashboard does even better. One of ENO's witnesses (I think it was Myra Talkington) was x-examined by Susan Miller during the Evidentiary Hearing on this point and was told by Myra that she held this opinion but had not done an analysis to confirm it.</i>
3/28/2019	R-19-111	37	ENO argues that the Proposed Rules lack an appropriate degree of specificity regarding the bill credits ENO (and non-participating customers) would be required to pay to Subscribers and/or Subscriber Organizations.
3/28/2019	R-19-111	38	<b>ENO also argues that virtual NEM is not an appropriate or established</b> method for calculating community solar bill credits.
3/28/2019	R-19-111	38	ENO states its work in that docket demonstrated that the existing NEM policy of providing net metered customers a 1:1 retail credit on their bills for the energy they export to the grid, regardless of whether that energy is needed at the time, is inherently inequitable because it causes a shift in costs from NEM customers to all others.
3/28/2019	R-19-111	38	ENO argues that it believes the NEM pricing structure creates <b>unfair cost-shifting</b> between participants and non-participants that contravenes well-established and longstanding principles of cost causation and allocation



3/28/2019	R-19-111	39	ENO states that its request to suspend the evaluation of necessary policy changes related to NEM resulted from ENO's responsiveness to stakeholder feedback, not a belief that current NEM policies are appropriate
3/28/2019	R-19-111	39	ENO states that it still firmly believes that current NEM policies are inequitable and cause a <b>cost shift</b> that disproportionately burdens non-NEM customers, many of whom live at or below the poverty line
3/28/2019	R-19-111	39	in UD-13-02. ENO submitted evidence, " demonstrating to the Advisors' satisfaction, that non-NEM customers were subsidizing NEM customers. However, the correct amount for NEM customers to pay was difficult to determine
3/28/2019	R-19-111	40	Community solar customers will impose greater costs on the system than NEM customers
3/28/2019	R-19-111	40	Advisors note, however, that Community solar customers should benefit from economies of scale
3/28/2019	R-19-111	41	Advisors note, however, that Community solar customers may very well be able to make shorter commitments of time and smaller commitments of money to invest in solar
3/28/2019	R-19-111	41	ENO argues that in Section IX of the Proposed Rules, the method of calculating avoided energy costs is clearly described, whereas the method of calculating avoided capacity costs is ambiguous
3/28/2019	R-19-111	42	ENO states that, absent rules to the contrary, the bill credit rate may be well above the value of ENO's avoided capacity and energy costs
3/28/2019	R-19-111	43	The Advisors reviewed ENO's avoided capacity and energy cost calculation methodology and found it consistent with the intent of the Proposed Rules with respect to calculating avoided energy and capacity costs on a per kWh basis for a solar generation facility.22 0 ENO provides three sample calculations based on three different capacity values.221 However, two of the calculations depart from the Proposed Rules and rely on the MISO PRA results, which the Advisors believe are not consistent with the value of new generation
3/28/2019	R-19-111	44	<b>the Advisors believe that it is appropriate for ratepayers to share the costs associated with administrative upgrades needed to enable ENO to administer a community solar program</b> -- updating billing programs, handling interconnection requests, etc. because the creation of the community solar program provides a new option available to all ratepayers
3/28/2019	R-19-111	44	
3/28/2019	R-19-111	45	The purpose of the projects should be to allow Subscribers to offset their own use, not to allow them to make a guaranteed profit at the expense of other ratepayers
3/28/2019	R-19-111	45	Council recognizes that setting the price for Subscriber Credits as closely as is practically feasible to the energy and capacity costs that ENO would otherwise pay if it did not purchase power from a CSG Facility should protect ENO's non-participating customers from significant rate increases due to purchases from CSG Facilities
3/28/2019	R-19-111	45	Council believes that although increasing the credit for low-income customers will cause other customers to bear some of the cost of low-income customers' participation, the rate impact to those other customers would be minimal and the public policy goal of allowing low income customers greater access to renewable resources is sufficient to warrant such a minor rate impact on other customers
3/28/2019	R-19-111	46	Council approves the Advisors' proposed calculation of Subscription Credits, with the modification that low-income customers shall receive the full retail rate credit
3/28/2019	R-19-111	47	Air Products agrees with ENO's proposal to (i) delete the requirement for unsubscribed energy to be purchased by the electric utility

3/28/2019	R-19-111	49	AAE argues that there is no difference between unsubscribed capacity at a community solar facility and a QF as described by PURPA,250 and therefore such excess energy should receive avoided cost payments, as is done in multiple states with successful community solar programs
3/28/2019	R-19-111	67	AAE believes that a broad range of renewables and storage projects should be able to follow the same kinds of rules contemplated in this proceeding and that the benefits of pairing solar with storage, should not be foreclosed by rules that are too restrictive
3/28/2019	R-19-111	67	Advisors note that there is nothing in the rules that would prohibit a solar facility that also has storage capability from qualifying as a CSG Facility, though the Advisors also note that at present, the storage aspect of the project may provide little additional value in the absence of time-of-use pricing in New Orleans.
3/28/2019	R-19-111	68	AAE agrees with the Advisors' proposal that subscribers to community solar programs should retain ownership of any Renewable Energy Credits (RECs) generated by the project
3/28/2019	R-19-111		