BEFORE THE MISSISSIPPI PUBLIC SERVICE COMMISSION

ENTERGY MISSISSIPPI, LLC 2021-AD-19	IN RE:	ORDER ESTABLISHING DOCKET TO REVIEW THE EFFICACY AND FAIRNESS OF THE NET METERING AND INTERCONNECTION RULES

ENTERGY MISSISSIPPI'S COMMENTS

Entergy Mississippi, LLC ("Entergy Mississippi" "EML" or the "Company") files its Comments in this Docket. As it did more than five years ago, EML continues to support our customers who choose to self-supply a portion of their energy needs. The Mississippi Renewable Energy Net Metering Rule ("NEM Rule") allows customers to self-generate electricity ("participants") while mitigating adverse consequences for EML's customers who do not self-supply their electricity ("non-participants"), many of whom are low-income customers. While the NEM Rule has effectively safeguarded the interests of non-participating customers, EML recognizes that some improvements to the current rule could be appropriate if the Commission's goal is to encourage further adoption of distributed solar generation, particularly for residential customers.

EML encourages the Commission to uphold its fair and reasonable approach to net metering as it evaluates the efficacy and functionality of the NEM Rule and the Mississippi Distributed Generator Interconnection Rule ("DG Rule"). Although the NEM Rule is a fundamentally fair approach to net metering, EML identifies an area in which the rule could be enhanced – see Section II below – and looks forward to working with the Commission to develop

additional enhancements that appropriately balance the interests of participants and non-participants. Any revisions to the NEM Rule or DG Rule should continue to allow EML customers to take advantage of technologies such as solar PV generation, but only in a way that does not enable unreasonable subsidization by customers who choose not to or are unable to net meter.[1]

I) Procedural History

In 2011, the MPSC opened a docket "for the purpose of investigating the development and implementation of net metering and interconnection standards." Order Establishing Docket, Docket No. 2011-AD-2, Jan. 6, 2011. Numerous parties intervened and filed comments, and hundreds of interested, individual customers submitted comments by email. Order Adopting Net Metering Rules, Docket No. 2011-AD-2, March 20, 2016 ("Order Adopting NEM") at pp. 1-2. In March 2016, the Commission adopted the current version of the NEM Rule. *Id.*

The NEM Rule includes a reopener provision, requiring the Commission to open a new docket on the fifth anniversary of the rule's enactment, to consider the NEM Rule's "efficacy and fairness." *Id.* at p. 20. The Commission advised that following adoption of the NEM Rule, it intended to "proceed deliberately [and] incorporat[e] changes incrementally, as warranted." *Id.* at p. 10. As required, in January 2021, the MPSC opened this docket, and on February 2, 2021, the MPSC requested comments from all parties. The Commission asked parties to focus on "actual experience and/or knowledge gained over the five (5) years that the Rule has been in effect" and

[1] There are many reasons why a customer may not choose to or be able to net meter. For example, the customer's rooftop may not be suitable for solar panels because it might not be able to support the panels or it may have too much tree coverage (*see* a 2008 study by the National Renewable Energy Laboratory https://www.nrel.gov/docs/fy09osti/44073.pdf, finding that only 22 to 27% of residential rooftop area is suitable for hosting an on-site photovoltaic system).

to "identify any proposed modifications or changes to the rule with redlined particularity." Order Seeking Comment, Docket 2021-AD-19, Feb. 2, 2021, p. 10, 1.

II) The Commission Appropriately Balanced the Interests of All Stakeholders with the NEM Rule, and EML Supports a Continued, Deliberate Approach to Policy Development

With the NEM Rule, the Commission recognized the importance of fostering access to distributed generation for interested customers, while using a measured approach to minimize negative impacts to non-participants. In its Order Adopting NEM, the Commission emphasized that it was "incorporat[ing] the lessons learned from other jurisdictions and provid[ing] a flexible framework that will allow this Commission to build upon experience as it is gained in Mississippi." Order Adopting NEM at p. 10. The Commission further highlighted its approach to "proceed deliberately, incorporating changes incrementally, as warranted." *Id.* The Commission also stated that "[a]s more information becomes available from... adoption, the Commission can, *over time*, determine whether it may be appropriate to increase compensation to net metering customers, update rate designs, or otherwise modify the rules..." *Id.* at pp. 10-11 (emphasis added). As the Commission indicated in 2016, the "overarching goal" is to incorporate changes over time while "minimizing any adverse consequences for those customers that choose not to install self-generation." *Id.* at p. 11.

The Commission demonstrated foresight in adopting and setting in motion a responsible and flexible policy. As will be discussed in more detail, since Mississippi's adoption of the NEM Rule, multiple states and jurisdictions have recognized the need to reform unsustainable NEM policies due to increased costs to non-participating customers. Entergy Mississippi urges the

Commission to continue its deliberate approach as it reviews the NEM Rule through the current reopener provision.

EML's 450,000 customers should continue to have the opportunity to self-generate electricity for their own use on their property, the ability to provide excess energy that they generate to the distribution grid, and to be credited on their bills for that excess energy at an appropriate, avoided cost-based rate plus the current 2.5¢/kWh adder for unquantifiable benefits. The Commission's policy and rules are now working as intended, allowing customers who desire to avail themselves of the opportunity to install qualifying distributed generation ("DG") systems to do so.

As it did in 2015, EML supports those customers wishing to install qualifying DG systems under a clear set of rules regarding interconnection and other matters such as billing. EML supports its customers being afforded fair treatment for any excess energy they deliver to the distribution grid "in a way that does not [financially] harm EM[L]'s other customers or the communities we serve, either operationally or economically."[2] Again, EML commends the Commission for its measured approach and encourages the Commission to continue down a deliberate path of measured policy development.

Accordingly, EML is supportive of efforts to develop the rule in a manner that provides greater customer certainty when evaluating investment in self-generation while preserving the fairness and flexibility provided by the existing rule. If the Commission's goal is to set a policy intended to drive higher adoption of net metering, EML believes an appropriate enhancement to

[2] COMMENTS OF ENTERGY MISSISSIPPI, INC. ON COMMISSION'S PROPOSED RULE dated July 1, 2015, in MPSC Docket No. 2011-AD-2.

the existing net metering framework would be to extend the current 2.5¢/kWh adder for non-quantifiable benefits for a period of 15 years when a customer first becomes a net metering customer. This could be accomplished by making it clear that a customer who signs up for net metering would be allowed the 2.5¢/kWh non-quantifiable benefits adder for a period of 15 years (rather than wondering whether the adder will be extended), which would provide greater certainty with respect to that aspect of the current rule. For example, the Commission could revise Chapter 3, Section 106 of the NEM Rule to read:

> Beginning with the effective date of this rule, Total Benefits of Distributed Generation shall temporarily be equal to the Avoided Cost of Wholesale Power plus Non- Quantifiable Expected Benefits. Further, Non-Quantifiable Expected Benefits shall be equal to 2.5 cents/kWh, which may be modified downward at any time by order of this Commission, should the Commission find it is in the public interest to do so, provided, however, that for customers who already receive the Non-Quantifiable Benefits added, they shall continue to receive it for a period not to exceed 15 years, even if the amount of the Non-Quantifiable Benefits Added is later reduced.

EML believes this extension would provide greater financial certainty for participants without leading to unreasonable subsidization of participants at the expense of their non-participating neighbors. EML is also supportive of reasonable efforts related to greater access for low-income customers interested in distributed generation resources, while simultaneously ensuring that the right safeguards are in place such that the interests of non-participating customers, many of whom are low-income customers themselves, are not harmed.

III) 2-Channel Billing Remains an Equitable and Transparent Approach Which Appropriately Balances the Interests of All Stakeholders

The NEM Rule allows for net-metering under a 2-Channel billing approach,[3] which represents a fair and equitable approach to addressing customer self-generation. This balanced approach has also been adopted in several other jurisdictions as the industry moves toward fair and more sustainable net metering policies, as will be discussed further in the comments. As the Commission stated in its 2015 Order, "[I]n order to prevent unfair cost-shifting and allow for accurate valuation of the benefits of excess energy delivered to the grid, the revised Net Metering Rule adopts a 2-Channel billing approach with excess energy valued each month and unlimited carryover of bill credits."[4] 2-Channel billing allows a NEM customer to enjoy a bundled full retail rate credit for any self-generation used on the customer's side of the meter to meet actual load (i.e. the customer's actual energy needs), which is similar to the way Qualifying Facilities ("QFs") are treated in practice. In other words, it is only the excess energy produced by the customer and delivered to the grid (i.e., energy produced beyond that needed by the customer) that is compensated at the Avoided Cost of Wholesale Power, plus the 2.5¢/kWh non-quantifiable benefits adder. Further, if a customer chooses to over-size his or her self-generation equipment and deliberately produce more excess energy, that customer will be allowed to do so, without unfairly shifting more of his or her own share of infrastructure costs onto other customers. Similarly, this approach also mitigates cost shifts that could occur unintentionally, such as if a

[3] As explained by Synapse in its September 2014 report to the Commission in Docket 2011-AD-2, there are multiple policy approaches to net metering, including 2-Channel billing. As discussed later in these comments, a growing number of states employ the 2-Channel billing approach to net metering.
[4] MPSC Docket 2011-AD-2, ORDER ADOPTING NET METERING RULE, December 3, 2015.

customer employs new energy efficiency offerings, installs more efficient equipment, or adds battery storage after having installed solar panels properly sized based on past usage.

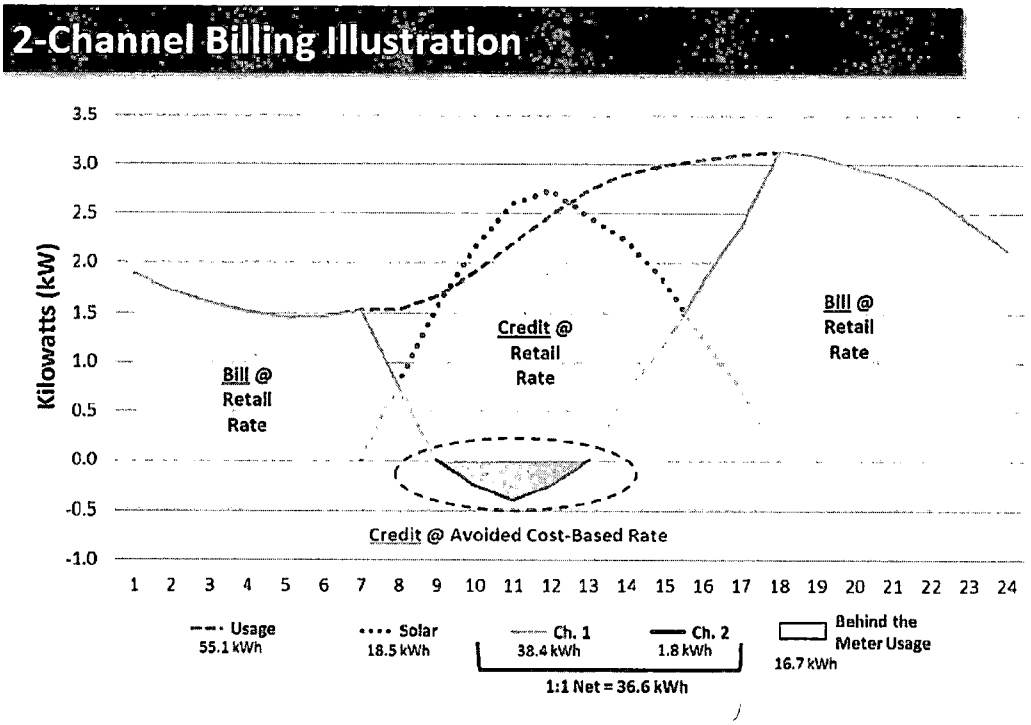
The current approach is straightforward, and appropriately addresses the issue of unfair cost shifting. The rule allows a NEM customer to utilize their self-generation equipment to meet their on-site electrical requirements in a manner consistent with existing and long-standing Commission policy and allows those NEM customers to sell their excess energy to EML at a fair price that reflects (as closely as currently possible)[5] the true value of that energy supply, which is similar to how other purchased power is bought. Additionally, the Net Metering rule does not have an unduly discriminatory effect on non-NEM customers.

a. 2-Channel Billing Offers Multiple Benefits

As stated above, 2-Channel billing provides a fair and transparent price signal to customers as to the value of the excess energy they deliver to the grid. It preserves long-standing federal and state policy that any energy generated by a customer and delivered to the grid should be compensated based on other alternatives available for supply (i.e., the utility's avoided costs). This offers the Commission significant flexibility to account for various benefits that are difficult to quantify by using an adder to avoided cost (i.e., the non-quantifiable benefits adder). 2-Channel Billing provides a mechanism to incentivize DG adoption by customers that might otherwise have limited opportunities (i.e., with a low-income adder). As shown in the illustration below, 2-Channel billing does not add any extra fees; it impacts only the bill credit the customer receives

[5] Currently, NEM customers are paid approximately 6.4¢/kWh, which is more than EML's 2020 average cost of generation (approximately 2.0¢/kWh).

for the typically small amount of excess energy they do not use themselves and send back to the grid.



For a typical residential customer with an average size system (6 kW or less), the amount of excess energy sent to the grid is small (< 30%) relative to the much larger amount used directly on-site where the customer is credited with the full retail rate.

b. Reversing Course on 2-Channel Billing by Adopting 1:1 Full Retail Credit NEM Would be Contrary to the Overall Regulatory Trend

Due to the Commission's measured approach, it continues to be in the fortunate position of being able to take advantage of the lessons learned elsewhere, to avoid the unforeseen and unintended negative consequences that have been experienced elsewhere.

Multiple states and jurisdictions recognize the need to reform NEM policies that have increased costs to non-participating customers, which have turned out to not be sustainable over

the long term. These proceedings have also been lengthy and contentious.[6] Because many customers, especially lower- and fixed-income customers, often cannot afford technologies like rooftop solar – a 6 kW system is likely to cost about $17,000 to install[7] – any shift in costs created by adopting regressive NEM rules will result in shifting costs from more affluent customers, who have the means to invest in solar generating facilities, to those least able to pay their bills. Many states with 1:1 full retail credit NEM policies have experienced rapid expansion, thus exacerbating the regressive cost-shifting to non-participating customers. Not including Mississippi, five states (Arizona[8], Hawaii[9], Indiana[10], Michigan[11], and Louisiana[12]) have implemented state-wide 2-Channel Billing as a successor NEM policy. Three states (Kentucky[13], New York[14], and Utah[15]) are in the process of transitioning to 2-Channel Billing. Many states, including Texas, have individual utilities (e.g., Entergy Texas[16], AEP-SWEPCO[17], City of Jacksonville, FL[18]) that have implemented 2-Channel Billing for NEM. Other states are implementing various NEM reforms

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[6] *See* Order Adopting NEM at p. 12 ("Included in the comments and materials provided by the Parties is information regarding the history of net metering in other states with a higher penetration of solar, problems that have arisen in those states as a result of net metering policies that include high levels of subsidies, and the recently proposed solutions to those problems. This information reveals that, despite the identification of significant unintended consequences of net metering, state regulators have faced difficulty in reversing course or amending their rules to rectify the unanticipated problems.")

[7] *See* December 2020 Quarterly Solar Industry Update from the Department of Energy's Office of Energy Efficiency and Renewable Energy: "The median residential quote from EnergySage in H1 2020 fell 2.4%, y/y to $2.85/watt (W)—a slower rate of decline than observed in any previous 12-month period."
https://www.energy.gov/eere/solar/quarterly-solar-industry-update

8 Arizona Corporation Commission Decision No. 76295, August 2017

9 Hawaii Public Utilities Commission Docket 2014-0192, Decision and Order No. 33258, October 2015

10 Indiana Senate Bill 309

11 Michigan Public Service Commission Case No. U-18383, Order issued April 2018

12 Louisiana Public Service Commission Docket R-33929, Order issued September 2019

13 Kentucky Senate Bill 100

14 New York Public Service Commission Case No. 15-E-0751

15 Public Service Commission of Utah Docket No. 14-035-114, Order issued September 2017

16 Schedule SQF effective November 2017

17 Schedule No. IV-63: Metering and Billing for Distributed Renewable Generation

18 JEA Distributed Generation Policy effective April 2018

to address unfair and unsustainable cost-shifting (California has already implemented NEM2.0 non-bypassable charges and now has a NEM3.0 proceeding underway[19]; Massachusetts and South Carolina[20] are also examining possible NEM alternatives).

IV) The Current Net Metering Rule Mitigates Financial Harm to Non-Participants

EML believes the current net metering rule mitigates the financial harm that could result to EML's customers who do not want to or are unable to self-generate. Further, when it adopted the NEM Rule, the Commission understood the risk of financial harm to non-participants, namely that of shifting utility infrastructure costs to non-participating customers. As noted above, one of the Commission's overarching goals in adopting the NEM Rule was to prevent that kind of unreasonable subsidization and any other unintended and unforeseen consequences that could result under a differently structured net metering rule.

A) Net Metering Customers Should Pay their Fair Share of Infrastructure Costs

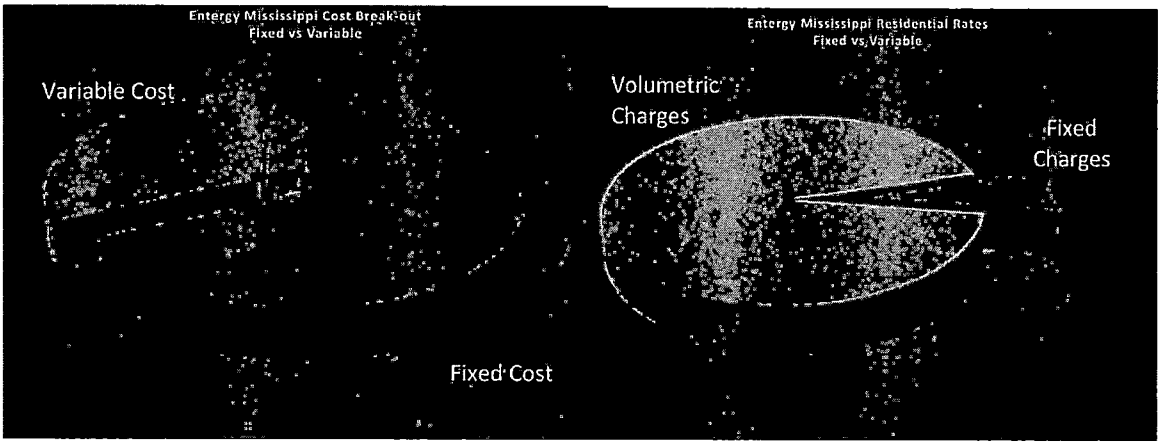
The Commission should continue to require net metering customers to pay their fair share of infrastructure costs (sometimes referred to as "fixed costs") through a 2-Channel billing system. The current net metering rule allows customers to self-generate energy for their own use and to sell their excess energy to EML, but also requires those self-generating customers to pay a fair share of EML's infrastructure costs. As the Commission is aware, electric utilities are hugely capital-intensive businesses with a significant amount of fixed costs: the people, poles, and wires needed to provide and maintain reliable electric service. Those fixed costs mainly include plant and equipment, such as power plants, transmission and distribution lines and related substations,

19 California Public Utilities Commission Docket R. 20-08-020
20 Solar Choice Metering Tariff proposal

transformers, and metering; capacity payments to third party power suppliers; customer service, including call centers and billing systems; salaries; taxes; operations and maintenance expenses; interest expenses, among other things, and are reflected in rates today, having been approved by the Commission as prudently incurred. In contrast, variable costs reflect the fluctuating "inputs" needed to produce and deliver electricity relative to fluctuating customer demand. Variable costs include such things as the natural gas, coal, and other fuels that a utility purchases to supply its power plants; purchased power from third party suppliers; and changing unit prices that the utility's suppliers charge the utility.

To maintain its on-going operations, provide adequate and reliable service at reasonable costs, and have an opportunity to earn a reasonable return on its capital improvements, EML must recover both fixed and variable costs from customers. However, EML's residential rate design uses volumetric (¢/kWh) charges with a very small fixed charge (for residential customers, $6.75/month) despite the vast majority of EML's infrastructure costs being fixed in nature. The chart below illustrate the disparity between EML's cost structure and the way revenues are collected from residential customers.

Figure 1: Illustrative Comparison of EML's Residential Cost Structure versus Revenues



Therefore, if overall electricity usage were to decrease, the amount of revenues collected to recover EML's fixed costs would fall, creating a shortfall that would be recovered via higher future retail rates. To be more specific, such a fixed cost recovery shortfall can be addressed by increasing fixed charges, which are paid by all customers, or by increasing the variable (volumetric) rates, or by some combination of the two approaches. To the extent that the decreased usage is caused by NEM customers (who continue to rely fully on the energy grid), increasing EML's volumetric rates places a higher and unfair burden on customers that do not want to or cannot self-generate by shifting infrastructure costs that are incurred to serve NEM customers onto non-NEM customers. This shift of costs is harmful to EML's customers who choose to not self-generate and/or who lack the ability to install self-generation even if they wanted to do so.[21]

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[21] In the comprehensive, 300-page interdisciplinary study published in 2015 by the Massachusetts Institute of Technology ("MIT"), the authors observe that this unfair cost-shifting occurs when NEM customers are compensated at the full bundled retail rate: "In an efficient and equitable distribution system, each customer would pay a share of distribution network costs that reflected his or her responsibility for causing those costs. Instead, most U.S. utilities bundle distribution network costs, electricity costs, and other costs and then charge a uniform per-kWh rate that just covers all these costs. **When this rate structure is combined with net metering, which compensates residential PV generators at the retail rate for the electricity they generate, the result is a**

The customer group most affected by cost-shifting likely would be low and fixed-income customers, because residential solar PV simply is not an economic method of generating and distributing electricity when compared to EML's average retail rates and to Mississippi's overall average retail rates. Based on this lack of economic benefit given current market conditions, EML's customers who actually install net metered self-generation equipment (rooftop solar panels or another technology) are more affluent and would be installing such equipment for reasons other than saving money.[22] Therefore, it also is likely that any shift in costs created by adopting regressive net metering rules will result in subsidization of more affluent customers by less affluent customers. Synapse Energy Economics, Inc., recognized this fact in its report in the previous net metering docket (2011-AD-2) and cited various third-party studies in support, stating, "From a social equity standpoint, [an accurate avoided cost rate for net metering] is important because net metering customers may have higher than average incomes. Net metering customers should be

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subsidy to residential and other distributed solar generators that is paid by other customers on the network. This cost shifting has already produced political conflicts in some cities and states – conflicts that can be expected to intensify as residential solar penetration increases." Schmalensee, Richard et al., *The Future of Solar Energy: An Interdisciplinary MIT Study*, 2015, p. xviii (emphasis original). For the Executive Summary of this Report, see Appendix, Tab 2.

[22] States with comparatively higher retail electricity rates and/or substantial subsidies for net metering customers have conducted research which indicates that on average residential solar PV is installed by more affluent customers. For example, a recent study conducted for the California Public Utilities Commission estimates that, by 2020, approximately $1.1 billion would be shifted annually from customers with distributed generation ("DG") to non-DG customers if California's current NEM practices (and rate structures) remain unchanged. Energy + Environmental Economics, Inc. (E3), California Net Energy Metering Ratepayer Impacts Evaluation, October 28, 2013, p. 6. That same study also reports that **non-DG customers are less affluent than the DG customers** they are subsidizing. *Id.*(emphasis added). In a recent proceeding, the staff of the Arizona Commerce Commission noted similar findings. Arizona Commerce Commission. Open Meeting re: Arizona Public Service Company-Application for Approval of Net Metering Cost Shift Solution (Docket No. E-0135A-13-0248). Sept. 30, 2013. In a draft report commissioned by the Louisiana Public Service Commission, the data **shows net metering customers have incomes on average 35% higher than non-net metering customers**. DRAFT-Estimating the Impact of Net Metering on LPSC Jurisdictional Ratepayers, Acadian Consulting Group, February 27, 2015, pgs. iii, iv and 168 (emphasis added).

paid for the value of their distributed generation, but non-participants should not bear an undue burden as a consequence of net metering."

Additionally, a study recently submitted to the California Public Utilities Commission in January 2021 as part of the Commission's NEM 3.0 proceeding concludes that existing NEM programs in California have exacerbated wealth disparities.[23] Specifically, customers participating under California's 1:1 NEM structure tend to be wealthier homeowners in high-income areas, on average, meaning these higher-income customers are shifting costs to those who can least afford those costs. Other parties in the California proceeding have made similar observations. In comments filed in March 2021, the AARP noted that "many customers now struggle to pay their current electric bill, given California's extremely high residential electric rates. The price pressures caused by NEM cross-subsidies make a difficult situation worse for those who cannot install distributed renewables (particularly solar) at their homes."[24] Accordingly, many parties have specifically proposed transitioning away from 1:1 NEM, such as the Public Advocates Office of the CPUC, which claimed that "compensating a NEM participant through net billing at the avoided cost for their exported energy instead of at the retail rate, would maintain a participant's ability to offset their usage with their BTM generation. It would also reasonably and fairly compensate the customer for the energy exported based upon the actual value of energy."[25]

The Commission's current Net Metering Rule seeks to achieve this more equitable result and minimize an unfair cost shift.

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[23] Verdant Associates, "Net-Energy Metering 2.0 Lookback Study," Submitted to the California Public Utilities Commission Energy Division, January 21, 2021, pp. 32-36.
24 Initial Comments of AARP on Proposed NEM Tariff Structure, California Public Utilities Commission Rulemaking 20-08-020, March 15, 2021
25 Public Advocates Office's Proposal for a Successor to the Current Net Energy Metering Tariff, California Public Utilities Commission Rulemaking 20-08-020, March 15, 2021

b. Self-Generating Customers Continue to Rely on the Grid

Solar PV, regardless of system size, is inherently intermittent (with a capacity factor of only around 15%) and cannot be relied upon to be available on demand to produce energy, making it non-dispatchable. NEM customers remain connected to EML's grid and rely on the grid fully, both during the many hours of the day (such as nighttime) when solar energy is not produced and those customers are taking power from the grid, as well as during the portion of the day when those customers may be producing more power than they use, thereby exporting excess energy to the grid to be distributed to other customers. The notion that net-metered customers are somehow no longer reliant on the grid after they install self-generation is simply a fallacy. Experience with rooftop solar also has shown that peak times of electricity use, which typically occur later in the day in the summer, do not match the peak generation times of a typical south-facing solar PV system. The following figure illustrates this mismatch, showing a summer day during which a typical 5 kW_{DC} net metered rooftop solar PV system located in Jackson, Mississippi operates in the daytime hours (red line) and produces more energy at mid-day than the consumer is actually using on his or her side of the net meter (dashed blue line).

The EML peak load in the summers of 2018, 2019, and 2020 occurred around 4:00 P.M. (hour 16), but solar PV peaked around 1:00 P.M. or 2:00 P.M. (hours 13 or 14). As a result, customers with solar rooftop generation rely on the grid rather than their own generation at times when peak load and demand are both highest, which tends to increase overall costs rather than lower overall costs.

V) The Current Net Metering Rule is Functioning in a Way that Balances the Interests of All Stakeholders, as Evidenced by the Data

As of December 2020, EML had 85 active Renewable Energy Net Metered Interconnection Customers ("RENMICs")[26] who had executed a Commission-approved Net Metering Interconnection Agreement. RENMICs delivered 435,363 kWh of excess energy back to EML's grid during calendar year 2020. This figure reflects the actual sum total of kWh sent back to EML, as measured from the bi-directional meters of the 85 RENMICs active during 2020. All 85 RENMICs delivered excess energy back to EML's grid during calendar year 2020 and were credited for that excess energy exported to EML.

In addition, there are customers with distributed generation facilities ("DGF Customers") interconnected to the Entergy Mississippi grid that have not executed a Commission-approved Net Metering Interconnection Agreement[27] and were not billed under Schedule NEM-1 in 2020. Data for all interconnected DGF customers, including RENMICs and non-RENMICs, is included in the chart below. At the end of 2020, there were 110 solar DGF customers and 1 wind DGF customer interconnected to the Entergy Mississippi grid.

At the end of 2020, the total nameplate capacity of RENMIC DGFs, 1,023.35 kW, was 0.0357% of EML's system total peak demand, 2,860 MW. Data for all interconnected DGF Customers, including RENMICs and non-RENMICs, is included in the chart below.

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[26] At the end of 2020, there were 84 solar net metering Distributed Generation Facilities ("DGFs") and 1 wind net metering DGF interconnected to the Entergy grid.

[27] Some customers installed DG systems before the Commission adopted the NEM Rule, and while EML has encouraged these customers to execute an Agreement so they can be compensated under Schedule NEM-1 (Third Revised), not all customers have chosen to do so.

Resource Type	Total Nameplate Rating (Generator kW) EOY
Solar	1089.51
Wind	11.14
Total	1,100.65

2020 EML Total Distribution System Peak Demand (MW)	2020 Total DGF Nameplate Capacity Rating (MW)	DGF Percentage of Total Peak Demand
2860	1.10	.0385%

During calendar year 2020, 12 EML customers were approved as RENMICs. The 12 new RENMICs had a total generating capacity (nameplate rating) of 131.23 kW.

Despite access provided by the NEM Rule, there does not appear to be broad interest by individual EML customers in solar installation. One major reason why the net metering adoption rate in Mississippi may appear modest compared to that of other jurisdictions is because customers are charged lower rates for electricity, relative to other states and regions of the United States. These low rates may create a reduced economic incentive to avoid paying some or all of that rate through opting to self-generate. This price signal stands in stark contrast to the one that exists in a state with very high retail electricity rates, like California, where there is a significantly higher incentive to install solar, simply because the retail rate the customer is avoiding as a result of self-generation is much higher.

At the utility scale, however, Mississippi has experienced significant growth in solar resources since the NEM Rule was adopted.[28] The fact that the vast majority of growth is in utility-

[28] *See, e.g.*, MISO Generator Interconnection Interactive Queue (https://www.misoenergy.org/planning/generator-interconnection/GI_Queue/gi-interactive-queue/), which evidences substantial utility-scale solar investment in Mississippi; Docket 2018-UA-267, approving Entergy Mississippi's Petition for a 100 MW solar facility in Sunflower County, MS

scale solar demonstrates the economic advantage provided by large-scale solar projects and confirms that small distributed generation solar facilities remain uneconomic by comparison, even with the subsidy being provided by the existing NEM Rule.

VI) Conclusion

As this Commission considers the many comments it is sure to receive in this docket, EML encourages a balanced and measured approach that is fair to all customers. Because the Commission proceeded deliberately when crafting the current NEM Rule, it now has the benefit of learning from other jurisdictions before considering modifications to its rule. EML continues to support its customers who wish to install qualifying DG systems, so long as non-participating customers, are not financially harmed. 2-Channel billing represents an equitable approach to addressing customer self-generation, and 2-Channel billing is essential to a sustainable NEM Rule in Mississippi.

VII) Responses to Commission Questions

To the extent the Company's responses to the questions listed in the February 2 Order are not addressed above, please see Attachment 1 to these comments.

This the 5th day of April 2021.

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and that, in the filing of the foregoing, I have complied with Rule 6 of the Commission's Public Utilities Rules of Practice and Procedure, in accordance with the Commission's March 12, 2020 Order Temporarily Suspending Rules and Encouraging Use of the Commission's Electronic Filing Systems.

This the 5th day of April 2021.

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Attachment 1

1. **Have the Net Metering and Interconnection Rules been effective in creating meaningful access to renewable self-supply opportunities for Mississippi electric customers?**
2. **What, if any, modifications to the Net Metering and Interconnection Rules could meaningfully increase customer access to renewable self-supply?**
3. **What, if any, modifications to the Net Metering and Interconnection Rules would incentivize increased participations by both net metering customers and industry providers such as developers, designers, installers and maintenance providers for distributed generation facilities?**
4. **What, if any, modifications to the Net Metering and Interconnection Rules should the Commission consider to increase low-income access to, and participation in, net metering?**
5. **What, if any, modifications to the Net Metering and Interconnection Rules should the Commission consider to better enable commercial and industrial enterprises to self-supply?**
8. **Should the Commission modify the timing or manner in which net metering customers are credited or compensated for excess energy exported to the grid?**
9. **What measures or mechanisms could most equitably reduce the up-front cost burdens faced by customers interested in self-supply through net metering?**
18. **What measures and mechanisms should the Commission consider to better enable schools, state and local government bodies, and other non-profit or tax-exempt entities to participate in net metering?**

With regard to the above questions, please see, generally, EML's Comments in this Docket.

6. **What, if any, modifications should be made to the annual reporting requirements of the current Net Metering Rule?**

EML does not believe that changes are needed to the annual reporting requirements of the NEM Rule.

7. **Should the Commission modify or remove the existing cap(s) on total installed net metering capacity?**

No. The caps were put in place by the Commission to set reasonable limits on net metering capacity in the state. The Commission designated cap has not impeded any NEM installations since the inception of the rule, but it serves as a guard to protect from shifting costs and harming those customers who do not or cannot afford to self-generate. Once removed, caps would be difficult to put back into place, reducing the level of flexibility and control that the Commission has over the policy.

10. **What role, if any, should the Mississippi Public Utilities Staff serve in reviewing facilities studies for Level 2 and/or 3 interconnections?**

The current rule provides proper and adequate dispute resolution related to facilities studies for Level 2 and/or 3 interconnections.

11. In light of the Commission's recent approval of advanced metering infrastructure (AMI) for Entergy and Mississippi Power Company, are bi-directional meters still needed for effective net metering?

Bi-directional meters are needed to credit the net metering customer for excess generation at the appropriate rate under a 2-Channel Billing structure. However, AMI meters include bi-directional technology, so unless an EML customer opts out of an AMI meter, they will not incur an additional charge for bi-directional technology under Schedule NEM-1 (Third Revised).

12. To the extent a commenter proposes a new or different compensation scheme, please explain how that proposal would directly affect a Mississippi customer's ability to self-supply. Answers to this question should include any relevant studies, surveys, financial modeling or other specific data-driven evidence supporting the position.

While EML believes that the 2-Channel billing compensation method in the current Net Metering Rule is appropriate, EML also believes that extending the current 2.5 ¢/kWh adder for non-quantifiable benefits for a period of 15 years, when a customer first becomes a net metering customer, could be an appropriate enhancement to this framework. An extension of the adder would provide greater financial certainty for net metering customers without enabling unreasonable subsidization by non-participants. Relevant studies, surveys, modeling, and/or data-driven evidence supporting 2 Channel-Billing are included in EML's Comments.

13. Should the Net Metering Rule incorporate uniform rules or standards applicable to community solar projects and, if so, in what way and to what extent?

No. Community solar is a separate program from net metering. Given the newness of community solar programs, a uniform rule could inhibit the adoption of community solar, as utilities determine the best solution for customers. Currently, no community solar projects are in operation in Mississippi. EML believes that gathering information from pilot or initial community solar projects is a necessary first step before consideration of uniform rules or standards related to community solar projects.

14. Should the Commission continue to condition a customer's receipt of the additional compensation allowed by the non-quantifiable benefits adder on the customer's voluntary transfer of their REC ownership?

Yes. Pursuant to EML's interconnection agreement, the receipt of the non-quantifiable benefits adder is expressly conditioned upon the customer's agreement to transfer to EML all rights to any RECs. A customer may retain the RECs if that customer opts not to receive the non-quantifiable benefits adder. Allowing a customer to receive both the

non-quantifiable benefits adder and the RECs associated with self-generation would essentially allow the customer to double the benefits associated with their generation at the expense of customers who do not self-generate.

15. Should the Commission permit meter aggregation by a single net metering customer/owner?

EML believes that it would be inappropriate for the Commission to permit meter aggregation by a single net metering customer. Meter aggregation is inconsistent with the rate design and allocation of costs approved by the Commission. Consequently, allowing meter aggregation would require a complete review of every rate regulated utility's rate design and cost of service, which could significantly impact both net metering participants and non-participants. Several states/jurisdictions, including Arkansas, have adopted such rules, which has often resulted in an increase in uneconomic net metering activity. This increase in activity, coupled with an increased administrative burden associated with managing meter aggregation by a single customer, only serves to exacerbate the cost shift that harms those customers who do not or cannot afford to self-generate. The adoption of such an unbalanced policy would also be difficult to roll back once in place, further reducing the flexibility and control that the Commission has over net metering in future years.

16. How could the Net Metering Rule most effectively and accurately incorporate new or developing distributed energy resources, such as battery storage?

The economics of battery storage paired with net metering are yet to be sufficiently studied or proven, as demonstrated by the relatively small number of states who have considered it. In light of the status of the Mississippi NEM Rule, EML believes it is premature to incorporate this type of distributed energy resource in a revised rule at this time.

17. What role, if any, should the Commission's Joint Solar Safety and Net Metering Working Group continue to serve going forward?

EML supports the Commission's Joint Solar Safety and Net Metering Working Group for continued discussion as necessary related to consumer protection and safety standards and guidelines for installation of distribution generation systems and education for consumers.