

**FILED**  
APR 05 2021  
MISS. PUBLIC SERVICE  
COMMISSION

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSISSIPPI

MISSISSIPPI PUBLIC SERVICE COMMISSION

DOCKET NO. 2021-AD-19

IN RE: ORDER ESTABLISHING DOCKET TO REVIEW THE  
EFFICACY AND FAIRNESS OF THE NET METERING AND  
INTERCONNECTION RULES.

MISSISSIPPI POWER COMPANY INITIAL COMMENTS

Mississippi Power Company ("MPC" or the "Company") respectfully submits these comments regarding the efficacy, fairness and functionality of the Mississippi Renewable Energy Net Metering Rule and the Mississippi Distributed Generator Interconnection Rule (hereinafter collectively the "Net Metering Rule") as requested by the Mississippi Public Service Commission's ("Commission") Order Seeking Comment issued in the above referenced docket on or about January 12, 2021. The Company welcomes this opportunity to continue the discussion about appropriate net metering access and adoption policy for the state of Mississippi and looks forward to assisting the Commission's overall review.

MPC's Comments are organized into the following sections: (1) Executive Summary; (2) Summary of Net Metering in Mississippi; (3) Recent Trends in Net Metering Policy; (4) Policy Considerations for Mississippi; and (5) Concluding Recommendations. Exhibit A to these Comments presents detailed and specific written responses to the questions posed in the Commission's Order Seeking Comment.

## I. Executive Summary

The Commission's consideration of net metering policy for the state should continue to advance the goals espoused in the order adopting the current Net Metering Rule. These include promoting the "customers' right to self-supply" and "consumer choice" while also desiring to "put downward pressure on rates" and "provide benefits to all ratepayers." While the first two goals address customer *access* to self-generation, the second two goals espouse specific constraints on incentivizing customer *adoption* of self-generation.

Vindicating access to self-generation while restraining non-participant funded adoption are not contradictory goals—in fact, they provide a specific road map for a measured approach to net metering policy that the rest of the nation has been reforming towards in the years since the Commission adopted its Net Metering Rule. Mississippi's Net Metering Rule preceded a nationwide trend of reforming net metering policies that, in hindsight, were determined to be skewed too far in favor of financially incentivizing the adoption of self-generation at the expense of non-participants.

MPC's experience over the last five years has demonstrated that while the Net Metering Rule enhanced customer access to self-generation, customer adoption continues to be driven by pure economic factors. It will be no surprise, then, to hear renewable energy advocates argue for a "rate increase" on behalf of self-generating customers.

In rate cases, as here, the Commission is charged with establishing rates “without unjust discrimination” or “undue preference or advantages.” The facts, here, support the conclusion that any change to enhance net metering pricing in Mississippi will serve to discriminate against non-participants and further the preference and advantage already afforded to self-generators. When this fact is coupled with the demographic and economic realities within Mississippi, it is very difficult to justify further pricing enhancements to the existing 2.5 cents/kWh premium afforded renewable self-generators today.

Although Mississippi’s net metering pricing policy should remain the same, the Company does think additional study should be dedicated to enhancing access to self-generation. Enhancing access will also ensure that low-income customers can take advantage of the benefits of self-generation when it is economic to do so and/or sufficient funding is made available to assist in the deployment of renewable energy solutions for the low-income community.

## **II. Summary of Net Metering in Mississippi**

The Commission opened a new docket on January 6, 2011 to investigate the development and implementation of new net metering and interconnection standards for the state of Mississippi. Following a thorough and comprehensive investigation and fact gathering process, the Commission adopted the current Net Metering Rule on December 3, 2015. As part of the Net Metering Rule, the Commission included a “Reopener Provision” that obligated the Commission to “open a new docket to consider the efficacy and fairness of the Net Metering and Interconnection Rules” in order to

“revise or modify the Rules as necessary.” Therefore, on January 12, 2021, the Commission established this docket “to consider the efficacy and fairness of the Net Metering and Interconnection Rules.”

The Net Metering Rule requires all investor owned electric utilities to allow their customers to self-generate for the purpose of offsetting their electricity use on site and sell any excess electricity to their utilities. Residential systems are limited to 20 kW and must be located on customer’s premises. Non-residential customers can aggregate generation systems within their premises up to 2 MW. Furthermore, distributed generation systems are allowed to interconnect on a first-come, first-serve basis until total installed capacity system-wide exceeds 3% of the utility’s total system peak demand recorded during its prior calendar year.

Under the Net Metering Rule, self-generators are compensated for any excess generation exported to the grid at a rate equal to the utility’s avoided cost plus a “non-quantifiable expected benefits adder,” that was temporarily set equal to 2.5 cents/kWh. The “non-quantifiable expected benefits adder” was intended to recognize the additional value of distributed generation on the grid that at the time of the rule’s initial promulgation was unknown. The Net Metering Rule contemplated that the benefits adder be estimated using actual data from Mississippi three years after implementation of the rule.

The Net Metering Rule also includes an additional incentive for low-income customers that requires the investor owned utilities in Mississippi to offer an additional adder of 2 cents/kWh to the Total Benefits of Distributed Generation

calculation for the first 1,000 qualifying low income customers who choose to participate in net metering. This low-income adder remains in place for 15 years from the date the customer begins service.

The Net Metering Rule supports a 2-channel billing approach in which excess energy is valued and credited monthly, with unlimited carryover of bill credits. Channel 1 records the net of the total electricity produced by the system and the total customer's electricity usage in real time. Electricity self-supplied by the customer will be credited at full retail rate. Any excess generation that is not used by the customer at the time it is generated will be recorded in Channel 2. The excess generation is credited at the utilities' avoided cost plus the additional "Non-quantifiable Expected Benefits Adder" (currently equal to 2.5 cents/kWh). All of the excess generation at the end of the billing period is converted to a monetary credit, and carried over to subsequent billing periods indefinitely; however, this credit cannot be applied to reduce any fixed charge or minimum bill component of the electric bill.

Through its several written and oral comments, MPC maintained the position that the Net Metering Rule would encourage growth of renewable capacity by improving the economics of distributed generation facilities for participating customers. MPC supported, and still supports, the expansion of renewable resources when economic to do so.

MPC also pointed out that self-generation and net metering results in a negative impact to fixed cost recovery because the rates that have been designed using kWh billing determinants under-collect fixed costs once the lost sales aspect of

self-generation and net metering are realized. MPC highlighted the impact of the proposed rule on non-generating customers who would be required to shoulder a larger burden of fixed cost recovery upon the implementation of the Net Metering Rule and recommended that the Commission consider how to most fairly account for the shifting of costs to non-generating customers that inevitably would occur.

Since passage of the Net Metering Rule, experience in Mississippi has confirmed that the cost-shifting subsidies from non-participants to self-generators is real and grows in significance as adoption increases. As detailed in the next section, this realization has been playing out nationally to such an extent that a majority of state regulators have been re-evaluating the pricing policy for net metering and/or adopting rate design changes aimed at ensuring self-generators bear their fair share of fixed-cost recovery.

### **III. Recent Trends in Net Metering Policy**

Net metering and customer self-generation policy has been an active issue, nationwide, for over two decades. Nearly every state has adopted some form of policy to address the unique issues that arise when customers make the decision to self-generate. After grappling with issues relevant to Mississippi, the Commission promulgated the current Net Metering Rule, which has proven, in hindsight, to be prophetic in its design and ahead of the curve of national net metering debate and policy.

Over the last few years, a nation-wide trend has been established by state regulators unwinding initially established net metering policies in an effort to

mitigate or completely eliminate the proven and material cross-subsidies visited upon the overwhelming majority of retail electric customers who do not participate as a renewable self-generator. In 2018, according to the North Carolina Clean Energy Technology Center, 48 jurisdictions took action to address net metering policies that year. Of the 264 policy actions taken by the states, 69% of those were related to re-evaluating and addressing the cross-subsidies inherent in early-adopted net metering pricing policy: residential fixed charge or minimum bill increase (30%); distributed generation compensation policies (27%); and solar valuation or net metering study (12%).<sup>1</sup> In 2020, the trend continued. Of the 257 total policy actions taken, 66% were related to the three categories listed above.<sup>2</sup>

While the issues, goals and proposed revisions vary from state to state, the overwhelming majority of jurisdictions have been considering and/or adopting changes designed to reduce or eliminate the cross-subsidies being enjoyed by self-generators under traditional net metering policy. The general categories and recent examples for each are detailed below:

- Increase to Fixed Customer Charge: The most frequent response to the cross-subsidies generated by new net metering rules has been increases to residential monthly fixed charges. In 2016 alone, 47 utilities proposed increases to their residential fixed charge in response to a loss of fixed-cost

---

<sup>1</sup> See North Carolina Clean Energy Technology Center: “The 50 States of Solar: 2018 Policy Review and Q4 Quarterly Report” at p. 10 (January 2019) *available at* <https://nccleantech.ncsu.edu/2019/01/31/the-50-states-of-solar-report-47-states-and-dc-took-264-distributed-solar-policy-and-rate-design-actions-during-2018/>.

<sup>2</sup> See North Carolina Clean Energy Technology Center: “The 50 States of Solar: Q4 2020 & Annual Review Executive Summary” at p. 5 (January 2021) *available at* <https://nccleantech.ncsu.edu/2021/01/27/the-50-states-of-solar-net-metering-reforms-lead-solar-policy-activity-in-2020/>.

recovery from self-generating customers.<sup>3</sup> In 2018, there were 77 pending or decided utility proposals in 36 states to increase residential fixed charges or minimum bills by at least 10%.<sup>4</sup> Overall, the median increase requested in 2018 was \$4.00, with proposals ranging from \$0.71 to 19.94.<sup>5</sup> The median increase requested was 44%.<sup>6</sup> Of the fixed customer charge decisions rendered in 2018, 66% were either fully or partially approved.<sup>7</sup>

- Specific Rate Design Changes for Self-Generators: Many different rate design modifications have been proposed and adopted to directly increase the rates charged to self-generators to ensure a larger proportion of fixed-cost recovery, thereby reducing the cross-subsidy borne by non-participants. Examples include minimum bill provisions, grid access/impact fees, demand- or capacity-based charges, time-of-use rate structures, and/or critical peak pricing. The most recent example has been sweeping rate design modifications requested by Duke South Carolina pursuant to the newly enacted “South Carolina Energy Freedom Act”<sup>8</sup> The purpose of the new law and Duke’s filing was to “fairly allocate costs and benefits to eliminate any cost shift or subsidization associated with net metering to the

---

<sup>3</sup> See North Carolina Clean Energy Technology Center: “The 50 States of Solar: Q4 2020 & Annual Review Executive Summary” at p. 10 (January 2021) *available at* <https://nccleantech.ncsu.edu/2021/01/27/the-50-states-of-solar-net-metering-reforms-lead-solar-policy-activity-in-2020/>. The trend has continued with 41, 34 and 31 utility rate increase requests made in 2017, 2018 and 2019 respectively.

<sup>4</sup> See North Carolina Clean Energy Technology Center: “The 50 States of Solar: 2018 Policy Review and Q4 Quarterly Report” at p. 32 (January 2019) *available at* <https://nccleantech.ncsu.edu/2019/01/31/the-50-states-of-solar-report-47-states-and-dc-took-264-distributed-solar-policy-and-rate-design-actions-during-2018/>.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> S.C. Act No. 62 of 2019.

greatest extent practicable.”<sup>9</sup> In response, Duke has proposed a suite of “Solar Choice Tariffs” that, among other things, add new fixed facilities charge, minimum bill, non-by-passable charge and grid access fee to the rates charged to net metering customers only.<sup>10</sup> These revisions are designed to ensure net metering customers are charged their share of fixed-cost recovery, thereby dramatically reducing the “cost shift or subsidization” associated with their decision to self-generate.

- Net Metering Pricing Re-Evaluations: Several jurisdictions have attempted to reduce or eliminate cross-subsidies by lowering or otherwise modifying the pricing paid to self-generators. Some jurisdictions have made efforts, like Mississippi,<sup>11</sup> to determine the independent value of self-generator capacity and energy to the utility and by extension, non-participating customers. Other jurisdictions have directly quantified the cross-subsidy being imposed on non-participants through cost of service methodologies in order to lower net metering pricing. Ultimately, states like Michigan,<sup>12</sup> California,<sup>13</sup> and many others have implemented or are considering “successor tariffs” over the last few years to adjust their net

---

<sup>9</sup> S.C. CODE ANN. § 58-40-20(A)(3).

<sup>10</sup> See Joint Application of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC for Approval of Solar Choice Metering Tariffs, S.C. Docket No. 2020-264-E.

<sup>11</sup> See generally David E. Dismukes, PhD., Acadian Consulting Group: “Actual Benefits of Distributed Generation in Mississippi”, Docket No. 2011-AD-2 (March 12, 2019).

<sup>12</sup> See <https://www.solarpowerworldonline.com/2020/12/michigan-psc-approves-lower-net-metering-rate-consumers-energy/>; see also Order, Mich. PSC Docket No. U-20697 (Dec. 17, 2020).

<sup>13</sup> Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision D.16-01-044, and to Address Other Issues Related to Net Energy Metering, Cal. PUC Rulemaking Docket No. 20-80-020 (Sept. 3, 2020).

metering pricing to reduce the cross-subsidy to a newly acceptable and affordable level.

Of course, many jurisdictions have combined some or all of these approaches over the last several years to mitigate the impacts proven to be borne by non-participants. As detailed below, however, Mississippi's Net Metering Rule preemptively addressed these concerns by limiting the premium paid self-generators to 2.5 cents/kWh over avoided cost, thereby avoiding the more severe consequences that have been experienced in other early-adopter jurisdictions.

#### **IV. Policy Considerations for Mississippi**

The Commission's questions posed in this docket can be categorized into 3 primary issues: access, adoption and technical.<sup>14</sup> MPC submits that a forthright discussion about the difference between access and adoption, and the policy initiatives related to each, remains most relevant and impactful to the current docket.

Access, broadly defined, is a measure of the relative ease to which customers that desire to self-generate may actually do so. A person's right to self-supply, or in this case self-generate, is codified in Mississippi law: "The term 'public utility' shall not include any person not otherwise a public utility, who furnishes the services or commodity described in this paragraph only to himself . . ."<sup>15</sup> Additionally, the current Net Metering Rule improved access to self-generation in Mississippi. Prior to approval of MPC's Renewable Energy Net Metering ("RENМ") rate on September

---

<sup>14</sup> The technical issues, mostly related to interconnection specifics, are largely non-controversial and are discussed in Exhibit A to these Comments.

<sup>15</sup> MISS. CODE ANN. § 77-3-3(d).

8, 2016, the Company's customers sold their excess renewable energy production to MPC exclusively through MPC's Cogeneration and Small Power Production Purchases ("CSPP") rate. Since the Net Metering Rule took effect in 2015, a total of 228 customers have added some measure of self-supply to their premises. Of this total, 189 are participating in and being compensated pursuant to MPC's RENM tariffs implemented under the authority of the Net Metering Rule. The table below presents a summary of the data reported by MPC annually concerning its RENM rate program.

<b>MPC Customer Self-Generator Adoption 2015-2020</b>				
<b>Customer Type</b>	<b>Quantity</b>	<b>Capacity (kWdc)</b>	<b>Energy Purchased (kWh)</b>	<b>Cost of Purchase Energy (\$)</b>
<b>RENM-A/RENM-B</b>	189	2,267.81	2,175,062	\$ (117,597.23)
<b>CSPP</b>	4	79.43	93,399	\$ (3,114.86)
<b>Non-Exporting/Offsetting Only (1)</b>	35	4,098.60	N/A	N/A

(1) Includes 1.573 kWdc at a transmission retail-served military installation

Notably, of MPC's 189 self-generating customers participating in the Net Metering Rule program, only one customer has been able to take advantage of the low-income adder. The Net Metering Rule provides that the low-income adder is available to anyone making 200% of the federal poverty limit. For a family of four in 2020, that income is \$53,000 per year.<sup>16</sup> Comparing this to the median household income in Harrison County, Mississippi of \$47,894 per year,<sup>17</sup> it becomes evident that access is easier for the more financially well-off than for the majority of families in MPC's service territory. Exhibit A to these Comments contains further discussion

<sup>16</sup> See <https://aspe.hhs.gov/poverty-guidelines>

<sup>17</sup> See <https://www.census.gov/quickfacts/harrisoncountymississippi>.

concerning opportunities to enhance access for customers with existing constraints that limit access today.

Adoption, however, is a measure of the proportion of customers who actually decide to self-generate from the universe of customers that have access to self-generation options. In MPC's experience, adoption is almost entirely premised upon an economic evaluation—in other words, customers want to know they will save money before investing large sums or making significant long-term commitments on self-generating assets. For example, MPC conducted polling of its net metering customers both in 2016 and 2020 that confirm customers in Mississippi are overwhelmingly motivated by saving money on their bill when making a decision to self-generate.

MPC Net Meter Customer Polling		
Primary Reason for Installing	2021	2016
Save Money	65%	70%
Environmentally Friendly	15%	18%
Energy Independence	13%	0%
Tax Credits	5%	0%
Investment in Home Value	3%	12%

The economics of self-generation are governed by several variables, some of which conflict with the Commission's regulatory mission. At a high level, self-generation economics are driven by: (1) the retail price of electricity; (2) the price paid for power exported to the grid; and (3) the cost of self-generation equipment. Each are briefly discussed below:

- Retail Price of Electricity: The higher the price of retail electricity, the more improved self-generation economics becomes. Electric prices in Mississippi

have historically been below national averages, which explains why Mississippi is not currently among the five or even ten states with the highest adoption rates. No one would seriously argue that the Commission should consider increasing the price of electricity for all customers for the sole purpose of enhancing the economics of self-generation. In fact, the Commission's statutory mandate to establish rates that are just and reasonable would prevent any direct, artificial inflation of retail electric prices. Stated simply, Mississippi's relatively low-rate environment inherently diminishes wide-spread self-generation adoption irrespective of the net metering policies ultimately adopted.

- Price Paid for Power Exported to the Grid: This variable has historically been the focal point of state regulatory policy debates for the obvious reason that it represents the only primary variable under the regulator's direct control. Renewable energy advocates have become transparent in recent years that regulators should adopt price premiums in order to incentivize self-generation adoption at the expense of non-participants, essentially arguing for rate increase on behalf of self-generators.

Cost of Self-Generation Equipment: The Commission has no direct control over the cost of deployed self-generating equipment, which is set by manufacturing realities, installer pricing and terms and other market pressures. However, government subsidies of many different forms have been adopted to reduce the upfront cost of self-generation adoption. The

obvious examples are tax incentives, grants or equipment purchase rebates, most of which the Commission cannot directly influence. The exception would be programs offered directly by regulated utilities that may offer cash incentives, rebates or financing options to would-be self-generators.

Large-scale adoption of self-generation alternatives that is economically driven appear to be present only in jurisdictions with higher-than-average retail rates, a robust program of financial incentives to assist with funding the initial customer investment and pricing premiums for customer-generated power.

Given the large amount of subsidy still required to drive adoption, the important question to resolve becomes: Is it appropriate from a public policy perspective to further incentivize self-generation *in Mississippi*?

It bears remembering the overall policy goals underlying the Commission's adoption of the current Net Metering Rule:

[T]he Commission finds a need for net metering because such a program supports customers' right to self-supply electricity as balanced by the need and right to connect to the grid, provides increased consumer choice and introduces innovation into a market dominated by monopolies, has the potential to put downward pressure on rates and provides benefits to all ratepayers, and constitutes a substantial step toward creating a viable solar market in Mississippi.<sup>18</sup>

Seeking to support the "customers' right to self-supply" and "consumer choice" speaks to access, not adoption, and the Net Metering Rule was a significant step in the right direction in furthering these goals. On the other hand, desiring to "put downward pressure on rates" and "provide benefits to all ratepayers" speaks to a

---

<sup>18</sup> Order Adopting Net Metering Rule, Docket No. 2011-AD-2, at pp. 3-4 (Dec. 3, 2015).

measured approach to adoption incentives that are equitable to both self-generators and non-participants alike. These goals are difficult to square with the level of self-generation incentives typically advanced by renewable energy advocates. It may be helpful to frame the discussion in terms that are more typical to state regulators. Advocates for more favorable net metering policy are, in essence, seeking a rate increase on behalf of self-generating customers, installers and manufacturers. In Mississippi, rates are established using a just and reasonable standard and are required to serve the public interest. These concepts necessarily require an evaluation of the impact to all stakeholders—not just the minority of customers that have access and the economic means to participate. Through this lens, a few troubling themes emerge.

First, self-generation is not incentivized in any other context in Mississippi. For example, hospitals or industrial facilities that install back-up or supplemental generation are not offered premiums to incentivize their installation or operation, even though these resources are capable of being dispatched. No state programs exist to provide up-front capital or favorable financing terms to incentivize more homeowners to abandon centralized water and wastewater systems. Similarly, the Commission does not monetarily encourage customers to leave the natural gas distribution system and embrace propane. To the contrary, the Commission has for years sought to expand citizens' access to natural gas.

Second, while net metering could incentivize renewable energy, this point fails to delineate why customer-owned renewable energy is more efficient, cost-effective

and preferred over utility-scale renewable energy applications. When a public utility seeks to build or acquire new resources such public utility must satisfy the public interest, typically showing a need and satisfying the need at the lowest reasonable cost. Historically, this has meant that the Commission evaluates the reasonableness of utility-scale solar as compared to the utility's own avoided cost—not an arbitrarily higher figure designed to incentive renewable energy development.

Despite these planning realities, MPC has supported the transition and proliferation of renewable energy when it is in the best interest of all its customers. Indeed, MPC utilizes over 150 MW of solar capacity in operation today, and all across the state, utility-scale solar projects are being developed by utilities and independent power producers alike.<sup>19</sup> These installations are being driven by market fundamentals and economics—not pricing premiums and other cross-subsidies from non-participating customers. As a result, these renewable generation projects, by definition, are intended to benefit all customers and place downward pressure on rates because the energy is projected to be acquired at rates below the public utility's avoided cost. In addition, these large-scale applications can help to drive economic development in as much as new developers are seeking renewable energy sources to meet corporate goals or operational needs.

Independent studies concerning Mississippi-specific data and constraints confirm these truths. According to the Commission's prior study, non-participants are not getting a good deal on the energy exported by self-generating customers. In

---

<sup>19</sup> See e.g., Docket Nos. 2020-UA-58; 2020-UA-59; 2020-UA-132, 2020-UA-203 & 2020-UA-211.

2019, the Acadian Consulting Group issued its final report entitled “Actual Benefits of Distributed Generation in Mississippi” which concluded that “a reasonable and quantifiable adder for [Entergy Mississippi, LLC] would be 0.35 cents/kWh and 0.27 cents/kWh for MPC’s service territory.”<sup>20</sup> While the Commission ultimately found that it was not in the public interest to replace the temporary adder at that time, the Commission also found that Acadian’s methodology was sound and reliable and followed the Commission’s directive without bias.<sup>21</sup> Whether examined in light of Acadian’s findings or the Renewable Cost Benefit Framework offered by MPC,<sup>22</sup> the value of solar as currently priced by the Net Metering Rule needs no further enhancement.

Third, the make-up in Mississippi between self-generators and non-participants raises serious public policy concerns. According to the most recent U.S. Census Bureau data, Mississippi’s median household income is \$45,081 and over 19% of the state’s population lives in poverty, the highest of any state in the country.<sup>23</sup> The largest barrier to self-generation adoption is a lack of available capital to fund the initial installation. Based on MPC’s historic data, the average size of a residential rooftop solar facility is 6.7 kW with an average installation cost equal to \$19,070 before the federal tax incentives. Obviously, this cost can vary depending upon the technology selected, size of the facility, geographic location and other factors, but this

---

<sup>20</sup> David E. Dismukes, PhD., Acadian Consulting Group: “Actual Benefits of Distributed Generation in Mississippi”, Docket No. 2011-AD-2, at p. ES-3 (March 12, 2019).

<sup>21</sup> Order Deferring Adoption of Actual Benefits Adder, Docket No. 2011-AD-2, at p. 6 (June 11, 2019).

<sup>22</sup> See generally Exhibit A to MPC Comments, Docket No. 2011-AD-2 (Feb. 4, 2019).

<sup>23</sup> See <https://www.census.gov/quickfacts/fact/table/MS/IPE120219#IPE120219>

single data point illustrates the root cause of adoption in Mississippi. Namely, upfront installation easily represents nearly 50% of the median household income in Mississippi.<sup>24</sup>

MPC's experience testifies to the fact above. Despite additional pricing premiums available to customer earning at or below 200% of the federal poverty line, MPC's records indicate that only one customer has availed itself of this benefit, and was only able to do so because the capital investment was funded by someone other than the customer. Furthermore, given MPC's current residential rate and the cost of renewable energy generation equipment, MPC's economic analyses summarized in Table 1 below,<sup>25</sup> clearly indicate that self-generation with rooftop solar is not economic for most residential customers.<sup>26</sup>

**Table 1 - Economic Analysis of 6.7 kW Rooftop Solar Facility**

	Price for Excess Energy	Simple Payback	Net Present Value of System	NPV of Cross Subsidy over Asset Life	Average Annual Cross Subsidy
Current Net Metering Rate	Avoided Cost + 2.5¢	19 Years	-4,932	\$5,079	\$500
Current Low Income Net Metering Rate	Avoided Cost + 4.5¢	17 Years	-\$3,876	\$5,954	\$592
Breakeven Net Metering Rate	Avoided Cost + 11.8¢	12 Years	\$0	\$9,152	\$903

Current net metering pricing contains full retail pricing for energy consumed on-site and a 2.5 cents/kWh price premium above avoided cost (4.5 cents/kWh for

<sup>24</sup> This is true even if up-front financing is made available by utilities or third-parties because low-income customers are not likely to satisfy the credit requirements lenders will require for the long-term credit required to finance the installation of on-site solar generation.

<sup>25</sup> The assumptions used for the calculations in Table 1 include: (1) 6.7 kW residential rooftop solar facility; (2) Equipment Cost = \$19,070; (3) Federal Tax Credit = \$4,958; (4) Facility Life = 25 years; (5) Energy Consumed On-Site = 5,351 kWh; (6) Excess Energy Sold = 4,267 kWh. The economic impact of the federal investment tax credit is significant; MPC estimates that the "break even" net metering pricing premium would increase from 11.8 cents/kWh to 20.7 cents/kWh above avoided cost if the federal investment tax credit was unavailable.

<sup>26</sup> The economic results reported in MPC's comments were derived from model typically used to evaluate demand-side and energy efficiency measures. MPC's evaluation of site-specific renewable projects are made on a case-by-case basis following the methodology presented in MPC's Renewable Cost Benefit Framework.

qualifying low income customers) for excess energy delivered to the grid. Table 1 illustrates for a hypothetical residential customer installing a 6.7 kW rooftop solar facility that such an investment is uneconomic. This reality explains the low level of renewable energy adoption in Mississippi. MPC's analysis indicates that for a customer to break even economically under the assumed facts above, a pricing premium equal to 11.8 cents/kWh over avoided cost would be necessary. Furthermore, under current net metering pricing, the total cross-subsidy enjoyed annually by self-generators represents approximately \$500 for every year the facility remains in operation. In the "break even" scenario this annual cross-subsidy increases to approximately \$903 per year.

From the Commission's perspective, which is limited to incentivizing self-generation through subsidies from non-participants,<sup>27</sup> serious public policy concerns are raised by these facts. The Commission has a statutory obligation to, among other policy goals, "promote adequate, reliable and economical service to all citizens" and "provide just and reasonable rates and charges for public utility services without unjust discrimination, undue preference or advantages . . . "<sup>28</sup> The Commission's own studies have determined that self-generation provides very little incremental value to the overwhelming majority of customers that cannot self-generate and are nonetheless compelled to purchase the power generated by those few customers that can. Therefore, enhancing net metering pricing beyond the current Net Metering

---

<sup>27</sup> It bears repeating that the Commission's lack of jurisdiction over federal or state tax policy and lack of control over private or public funding that might be available to assist in self-generation adoption largely limits the Commission's options to programs implemented by regulated utilities and funded through retail electric rates.

<sup>28</sup> MISS. CODE ANN. § 77-3-2.

Rule would serve only to exacerbate the discrimination, preference and advantage afforded self-generating customers.

## **V. Concluding Recommendations**

Based upon the discussion above and MPC's detailed responses to the Commission's questions provided in Exhibit A attached hereto, MPC would provide the following general recommendations to the Commission as it proceeds in its review of Mississippi Net Metering Rule:

1. The Commission should concentrate on addressing issues of access rather than adoption. MPC's analysis demonstrates that rooftop solar is not economic for the overwhelming majority of customers, and any efforts undertaken by the Commission to artificially enhance these economics in Mississippi will be financially shouldered by the non-participating customers of MPC. This is especially true given the difficulty in developing the large amounts of funding that would be necessary to provide a realistic and meaningful opportunity for low-income customers to participate.
2. The Commission should decline any invitation to enhance the already rewarding 2.5 cents/kWh "non-quantifiable expected benefits adder" and instead evaluate innovative rate design options like time-of-use pricing, non-bypassable charges, minimum bills, etc. to ensure that self-generating customers can be counted on to pay for their fair share of fixed-cost recovery towards the electric system used to serve all customers.

3. Enhancing access to low-income customers should be further explored to determine which options, if any, make sense for Mississippi.
4. Unfortunately, with respect to adoption, there is no silver bullet to incentivize low-income participation, other than raising or mandating contributions to fund their participation directly or indirectly. A review of the literature and programs in other jurisdictions boil down to devising different ways for third-parties to fund the upfront costs on behalf of qualifying low-income customers. Regardless of the approach, MPC thinks that a more cost-effective and much more impactful investment in the low-income community is through energy efficiency measures, specifically by improving insulation levels, air sealing of the residence and mechanical efficiency of electric appliances. These measures typically deliver meaningful bill savings to customers at a significantly reduced cost when compared to self-generation options.

## **Exhibit A - MPC Answers to Commission Questions**

### **1. Have the Net Metering and Interconnection Rules been effective in creating meaningful access to renewable self-supply?**

Yes. The current Net Metering Rule greatly enhanced access to renewable self-supply options, especially for the residential customer class. The formalized procedures provided by the rule now allows MPC to better educate and assist interested customers with evaluating renewable self-supply opportunities. Customer feedback to date has been very positive, validating MPC's decision to identify dedicated resources internally to administer and respond to customer inquiries regarding net metering.

Since the Net Metering Rule took effect in 2015, a total of 228 customers have added some measure of self-supply to their premises. Of this total, 189 are participating in and being compensated pursuant to MPC's RENM tariffs implemented under the authority of the Net Metering Rule. See the table below for additional data concerning the self-generating customers on MPC's electric system as of year-end 2020.

<b>MPC Customer Self-Generator Adoption 2015-2020</b>				
<b>Customer Type</b>	<b>Quantity</b>	<b>Capacity (kWdc)</b>	<b>Energy Purchased (kWh)</b>	<b>Cost of Purchase Energy (\$)</b>
<b>RENM-A/RENM-B</b>	189	2,267.81	2,175,062	\$ (117,597.23)
<b>CSPP</b>	4	79.43	93,399	\$ (3,114.86)
<b>Non-Exporting/Offsetting Only (1)</b>	35	4,098.60	N/A	N/A

(1) Includes 1.573 kWdc at a transmission retail-served military installation

### **2. What, if any, modifications to the Net Metering and Interconnection Rules could meaningfully increase customer access to renewable self-supply?**

The primary groups of customers who currently do not have access to self-supply options are renters (both single-family and multi-family) as well as commercial customers with inadequate or lack of access to available space to locate renewable self-supply facilities. More generally, local building codes, zoning regulations and existing private contractual requirements can sometimes limit or eliminate customers' access to renewable self-supply. None of these issues are created by the existing Net Metering Rule, but, rather, are customer-specific constraints beyond the control of the Commission or the Company. Nevertheless, virtual solar and utility-owned community solar programs have been experimented with in other jurisdictions to try to resolve these common access barriers. Even these

work-arounds, however, do not address the underlying economics that drive renewable self-supply adoption discussed further below.

**3. What, if any, modifications to the Net Metering and Interconnection Rules would incentivize increased participation by both net metering customers and industry providers such as developers, designers, installers and maintenance providers for distributed generation facilities?**

In MPC's experience, adoption is almost entirely premised upon an economic evaluation—in other words, customers want to know they will save money before investing large sums on self-generating assets. For example, MPC conducted polling of its net metering customers both in 2016 and 2020 that confirm customers in Mississippi are overwhelmingly motivated by saving money on their bill when making a decision to self-generate. The polling results are reported in the table below:

MPC Net Meter Customer Polling		
Primary Reason for Installing	2021	2016
Save Money	65%	70%
Environmentally Friendly	15%	18%
Energy Independence	13%	0%
Tax Credits	5%	0%
Investment in Home Value	3%	12%

At a high level, self-generation economics are driven by: (1) the retail price of electricity; (2) the price paid for power exported to the grid; and (3) the cost of self-generation equipment. Large-scale adoption of self-generation alternatives that is economically driven appears to be present only in jurisdictions with higher-than-average retail rates, a robust program of financial incentives to assist with funding the initial customer investment and pricing premiums for customer-generated power. These conditions simply do not currently exist in Mississippi, and most of the changes necessary to impact the underlying economics are beyond the Commission's jurisdiction or statutory authority. In other words, the Commission cannot arbitrarily increase the retail price for electricity state-wide or impact the installed cost of renewable generation equipment. The only remaining variable within the Commission's control to artificially improve renewable energy economics is net metering pricing.

Current net metering pricing contains full retail pricing for energy consumed on-site and a 2.5 cents/kWh price premium above avoided cost (4.5 cents/kWh for qualifying low income customers) for excess energy delivered to the grid. The table below illustrates for a hypothetical residential customer installing a 6.7 kW rooftop

solar facility,<sup>1</sup> such an investment is uneconomic.<sup>2</sup> This reality explains the low level of renewable energy adoption in Mississippi. MPC's analysis indicates that for a customer to break even economically under the hypothetical assumptions above, a pricing premium equal to 11.8 cents/kWh over avoided cost would be necessary.

**Table 1 - Economic Analysis of 6.7 kW Rooftop Solar Facility**

	Price for Excess Energy	Simple Payback	Net Present Value of System	NPV of Cross Subsidy over Asset Life	Average Annual Cross Subsidy
Current Net Metering Rate	Avoided Cost + 2.5¢	19 Years	-4,932	\$5,079	\$500
Current Low Income Net Metering Rate	Avoided Cost + 4.5¢	17 Years	-\$3,876	\$5,954	\$592
Breakeven Net Metering Rate	Avoided Cost + 11.8¢	12 Years	\$0	\$9,152	\$903

The above analysis presents the economics of renewable energy from the self-generator's perspective. From the non-participant's perspective the economics are starkly different. First, every kWh of energy purchased at a premium above avoided cost, by definition, represents a subsidy paid to the self-generator from the non-participating customers because the non-participants could obtain energy being purchased at avoided cost. Second, under current retail rates, self-generating customers avoid fixed-cost recovery for every kWh self-supplied and consumed on-site. These avoided fixed-costs are paid for by non-participants in the form of increased retail rates. Under current net metering pricing, the total cross-subsidy enjoyed annually by self-generators represents approximately \$500 for every year the facility remains in operation. In the "break even" scenario this annual cross-subsidy increases to approximately \$903 per year. Funding this level of additional incentive on top of the already significant cross-subsidy contained in the current Net Metering Rule pricing imposes undue discrimination upon non-participants. Furthermore, given Mississippi's demographics, in practice, the cross-subsidy would eventually be paid to customers that can afford to self-generate and borne primarily by low-income customers that cannot afford to self-generate.

**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?**

Low-income customers have the same potential to suffer from lack of access issues as any other residential customer (i.e. renters) discussed in Question #2 above. In fact, in MPC's experience low-income customers are more likely to not own their

<sup>1</sup> The assumptions used for the calculations in Table 1 include: (1) 6.7 kW residential rooftop solar facility; (2) Equipment Cost = \$19,070; (3) Federal Tax Credit = \$4,958; (4) Facility Life = 25 years; (5) Energy Consumed On-Site = 5,351 kWh; (6) Excess Energy Sold = 4,267 kWh.

<sup>2</sup> The economic results reported in MPC's comments were derived from model typically used to evaluate demand-side and energy efficiency measures. MPC's evaluation of site-specific renewable projects are made on a case-by-case basis following the methodology presented in MPC's Renewable Cost Benefit Framework.

own home. Therefore, measures taken to improve access for certain cohorts of customers will also serve to increase access to low-income customers.

With respect to adoption, however, low-income customers face much steeper barriers. According to the most recent U.S. Census Bureau data, Mississippi's median household income is \$45,081 and over 19% of the state's population lives in poverty, the highest of any state in the country.<sup>3</sup> The largest barrier to self-generation adoption is a lack of available capital to fund the initial installation. Based on MPC's historic data, the average size of a residential rooftop solar facility is 6.7 kW with an average installation cost equal to \$19,070 before the federal tax incentives. Obviously, this cost can vary depending upon the technology selected, size of the facility, geographic location and other factors, but this single data point illustrates the root cause of adoption in Mississippi. Namely, upfront installation easily represents nearly 50% of the median household income in Mississippi.

All of this data suggests the overwhelming majority of Mississippi households simply cannot afford to self-generate, especially low-income households. This is borne out through MPC's experience over the last five years. Despite additional pricing premiums available to customers earning at or below 200% of the federal poverty line, MPC's records indicate that only one customer has availed itself of this benefit, and was only able to do so because the capital investment was funded by someone other than the customer.

Industry literature expresses the same concerns nationwide. A review of the literature and programs in other jurisdictions boil down to devising different ways for third-parties to fund the upfront costs on behalf of qualifying low-income customers.<sup>4</sup> This is true whether the program seeks to place self-generation on the customer's premises or through a community solar or virtual solar-type program. Unfortunately, with respect to adoption, there is no silver bullet to incentivize low-income participation, other than raising or mandating contributions to fund their participation directly or indirectly.

For all of the above reasons, MPC believes that a more cost effective and much more impactful investment in the low-income community is through energy efficiency measures, specifically by improving the insulation level, air sealing of the residence and mechanical efficiency of electric appliances. These measures typically deliver meaningful bill savings to customers at a significantly reduced cost. A detailed discussion of the comparison of cost between self-generation and energy efficiency measures for low-income customers is provided in response to Question #9 below.

---

<sup>3</sup> See <https://www.census.gov/quickfacts/fact/table/MS/IPE120219#IPE120219>

<sup>4</sup> See e.g., North Carolina Energy Technology Center: "Community Solar Opportunities for Low to Moderate Income Households in the Southeast" (Updated June 2020) available at [https://nccleantech.ncsu.edu/wp-content/uploads/2018/05/Community-Solar-LMI-Report-3\\_27\\_18.pdf](https://nccleantech.ncsu.edu/wp-content/uploads/2018/05/Community-Solar-LMI-Report-3_27_18.pdf)

**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?**

While an increasing number of large businesses like Walmart and Amazon are interested in self-supplying with renewable energy to reduce their carbon footprint, the majority of commercial and industrial customers of MPC are primarily seeking a reduction in their energy costs. The economics for business customers can vary dramatically based on building characteristics, energy usage patterns, and financial structures. Further, it has been MPC's experience that almost all of its industrial customers and many of its commercial customers possess the expertise internally to accurately evaluate the economics of self-supply and are actually doing so on a periodic basis. Therefore, the low level of adoption rates among commercial and industrial customers must be due to the lack of a financial benefit to the customer, given the few non-financial barriers to access. All of the reasons justifying no change to the existing incentive structure in the Net Metering Rule described in MPC's Comments and this Exhibit A apply to the industrial and commercial class, and perhaps even more so given that several possess the financial means to fund the upfront capital requirements without assistance from MPC's remaining customer base.

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

MPC does not believe the timing or required content of the annual reports require modification because the existing requirements are serving the goal of keeping the Commission and public adequately informed of the status of net metering activity and adoption in the state.

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

MPC does not believe the existing cap(s) on total installed net metering capacity should be modified or removed at this time. Due to the poor economics applicable to most of MPC's customers, the adoption rate for renewable generation has been low. As the economics of solar, in particular, continue to improve, adoption rates should rise, and the existing cap(s) will serve the same goals for which they were originally established—protection of the electric delivery system and capping the cost exposure of non-participants to the cross-subsidies inherent in the current rule design. It has been typical in other jurisdictions to reserve any revision to capacity caps until customer adoption has risen to a level that threatens to exceed the applicable cap(s).

**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?**

No. The current method does a very good job of keeping all revenue exchanges within the month they occur. Also, should there be any excess, the variance will be cleared out at year-end. This gives the ability to have a zero variance at the year end and complies with the accounting “matching principle” of keeping exchanges within the month or year that they occur. Finally, the customer sees an immediate benefit by having a credit on their bill.

**9. What measures or mechanisms could most equitably reduce the upfront cost burdens faced by customers interested in self-supply through net metering?**

While federal tax credits (and state tax credits in those states that have adopted them) have improved the economics of renewable generation for some customers, these incentives do not address the upfront cost burden faced by customers.<sup>5</sup> The customer must first install the equipment and commence operation before receiving the tax credit during the subsequent income tax cycle.

To reduce the upfront cost burden, two structures have been primarily considered by other jurisdictions. One option is to encourage or enhance the availability of financing options for customers. Commercial and lending terms can vary significantly depending upon the circumstances, but, in theory, customers could choose to finance the upfront cost and thereby spread the cost of the initial investment in self-generating equipment over some or all of the expected life of the equipment. In essence, the customer would be paying more (in real terms) for the equipment due to financing costs, but such an option might provide a means to self-generate to some customers who cannot afford the upfront investment that would otherwise be required.

Another option is to offer some form of rebate to customers to help reduce the upfront cost burden. The policy question is how to fund the rebate. Equipment manufacturers/installers could voluntarily choose to offer rebates as a means to help drive demand. While this option is market-driven and equitable to all customers, the Commission cannot rely on the existence or persistence of any such programs long-term. MPC is not aware of any such rebates being offered in Mississippi currently. Rebates offered by the utility would require an identified funding source, and, in almost all instances, would only exacerbate the negative impact to non-participants. As a result, a utility-sponsored rebate program would not be “equitable” to all

---

<sup>5</sup> The economic impact of the federal investment tax credit is significant; MPC estimates that the “break even” net metering pricing premium would increase from 11.8 cents/kWh to 20.7 cents/kWh above avoided cost if the federal investment tax credit was unavailable.

customers except in the instance where the price to be paid for the renewable energy is reduced in order to fund an upfront rebate that would be offered.

The current Net Metering Rule does not permit either option to be offered by electric utilities—specific programs would need to be proposed and approved by the Commission. Of course, either or both options could be offered by third-party installers provided the contractual arrangement meets the requirements of the Net Metering Rule and Public Utility Act.

Given that low-income customers face the most significant challenges to funding the upfront costs, MPC believes equity is best served by considering a program designed to assist low-income customers. For example, the Commission could permit the utilities to have the flexibility to offer a cash rebate to qualifying low-income customers in lieu of the monthly payments for any excess energy delivered to MPC. While this would eliminate any bill credits associated with the excess energy, the customer would still enjoy the bill savings realized from avoiding energy purchases by consuming the renewable energy on-site. Trading the net present value of excess energy over an assumed 25-year equipment life would afford an upfront cash rebate of approximately \$8,572 for a system sized at 6.7 kW. This represents approximately 40% of the total cost to install (excluding federal tax credits). While this rebate does not cover the full cost of installation at this time, this type of rebate could be coupled with other funding sources that might be made available now or in the future at the federal, state or local level to assist with the adoption of renewable energy by low-income communities. A table estimating the upfront payments under the current pricing in the Net Metering Rule as well as the “break even” scenario described in Answer #3 above is provided in the table below.<sup>6</sup>

Table 2 - Upfront Incentive Calculation

	Upfront Incentive	Simple Payback	Net Present Value of System	NPV of Cross Subsidy over Asset Life	Year 1 Cross Subsidy	Year 2 - 25 Average Annual Cross Subsidy
Current Net Metering Rate Pricing as Upfront Incentive	\$6,609	16 Years	-\$1,671	\$8,055	\$6,841	\$196
Current Low Income Net Metering Rate Pricing as Upfront Incentive	\$8,572	12 Years	\$292	\$9,805	\$8,804	\$196
Breakeven Upfront Incentive	\$8,280	13 Years	0	\$9,434	\$8,512	\$196

MPC believes that any consideration by the Commission of offering an upfront incentive option should be limited to qualifying low-income customers and should only be made available after energy efficiency measures have been exhausted at the customer location.

Equity is best served by limiting the upfront payment to low-income customers. Adoption among low-income customers to date is non-existent in Mississippi because

<sup>6</sup> The assumptions used for the calculations in Table 2 include: (1) 6.7 kW residential rooftop solar facility; (2) Equipment Cost = \$19,070; (3) Federal Tax Credit = \$4,958; (4) Facility Life = 25 years; (5) Energy Consumed On-Site = 5,351 kWh; (6) Excess Energy Sold = 4,267 kWh.

they simply cannot afford to participate. Importantly, the low-income customer base is a significant portion of MPC's customers. Because any enhancement in net metering pricing policy creates further cross-subsidy upon the non-participant, the practical affect is that low-income customers are forced to partially subsidize affluent customers that can already afford to self-generate. For this reason, equity would dictate that cross-subsidies—to the extent they are a desirable policy outcome—be borne by affluent customers for the benefit of low-income customers. This goal is satisfied by limiting any further net metering pricing enhancement, including but not limited to, upfront rebate options, to qualifying low-income customers only.

Further, energy efficiency has been determined to be a much more cost-effective way to save money for low-income customers. MPC's current low-income energy efficient program, Mississippi Power Select, installs up to R38 insulation in customers' attics and provides a dozen LED light bulbs per home. Qualifying low-income customers receive both benefits free of charge.<sup>7</sup> This program has been measured to deliver a combined average energy savings of over 1,400 kWh per year and estimated bill savings of approximately \$175 per year. The cost of the program is approximately \$715 per home. Therefore, for the cost to provide an upfront payment for just one rooftop solar facility (\$8,156), approximately 11 homes could be improved under MPC's existing low-income energy efficiency program at out-of-pocket cost to the customer. In other words, MPC's existing low-income energy efficiency program has a 10-1 cost advantage over incentivizing self-generation, and, importantly, requires no investment from the customer.

MPC maintains that equity would dictate no further enhancement to the existing Net Metering pricing policy in Mississippi. However, should an upfront rebate option or any other enhancement to the current net metering policy be under consideration, MPC believes equity dictates these pricing enhancements be limited to benefit low-income customers only.

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

MPC has not received nor been made aware of any complaints or concerns from customers or installers regarding the processing of applications or the facility studies conducted under the Net Metering Rule. Given past performance in this area, MPC does not believe the additional time and resources that would be required of the Mississippi Public Utilities Staff to review Level 2 and 3 facility studies is warranted at this time.

---

<sup>7</sup> The current budget for this program services approximately 1,000 low-income households per year.

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?**

Yes, bi-directional meters are still, and will continue to be, needed to accurately meter the flow of energy into and out of a premise.

The electromechanical meters of the past did not have the ability to segregate delivered energy from received energy. They simply ran forward and backward, providing a net value. Bi-directional meters of the time added a second register to measure the flow in the opposite direction of the intended use. These type of meters, electromechanical bi-directions meters, are no longer needed because AMI meters are by default bi-directional electronic devices. Thus, AMI meters can measure the flow of energy delivered to and received from a premise. Because we can reprogram the meter remotely, we can simply reconfigure an AMI meter to record as needed, delivered, or received.

A major concern of moving away from bi-directional metering is how the two energy flows are booked. Payments to customers for excess energy come from Rate FCR (Fuel Clause), while payments from customers flow to various clauses, including PEP, FCR, ATA, ECO, etc. It is not desirable to have a single channel in which the energy that flows in either direction is captured. This would revert to true "net metering" where essentially all energy generated by the customer is priced at the full retail price causing payments to come from inappropriate rate clauses.

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.**

See MPC's response to Questions #3 and #9 above. Because MPC does not know the specifics of any "different compensation scheme" it is difficult to provide any specific comments at this time. MPC reserves the right to provide specific comments if/when an alternative scheme is proposed.

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?**

Current Mississippi law would not permit most, if not all, community solar program designs owned or operated by a third-party rather than the certificated electric public utility. Given this limitation, uniform rules or standards are not necessary. When designed correctly, community solar arrangements can allow previously ineligible electric customers an opportunity to self-generate. There are many legal issues that arise out of community solar programs including securities

regulation, tax law, public utility regulation to name a few. There are also important policy and administrative issues requiring resolution such as subscription purchase financing, calculating and applying bill credits, promoting low-income participation, transfer of community solar subscriptions, subscription caps/limits, subscriber eligibility requirements and disposition of unsubscribed electricity. In order for the Commission to maximize flexibility in program design, each public utility should be permitted to design their own programs based upon the specific customer needs and location-specific constraints applicable to each.

**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?**

REC transfer to the purchasing entity (i.e. electric public utility) is common practice across the nation. It is a condition of our current Commission-approved Energy Purchase Agreements as well as a requirement of our Commission-approved Contract for Purchased Energy that is used for facilities that will be interconnecting and selling energy at our avoided cost rate. Additionally, the small nature of most customer-owned facilities will not generate a number of RECs that provide value to any individual customer, but when aggregated can create value for all customers. Therefore, it is our opinion that it should remain a requirement that any customer compensated for energy under the Net Metering rule voluntarily transfer REC ownership to the purchasing entity.

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

Rule 10.115 of the Commission's Rules and Regulations Governing Public Utility Service provides:

115. SEPARATE METERING AND BILLING Separate customer premises shall be metered and billed separately even if under common ownership, and combined metering or billing shall not be permitted. Such premises shall be considered separate when not on the same tract or contiguous tracts of land or served from separate services, or when each is a complete unit not physically integrated with, or essentially a part of the other or others. Tracts of land separated by public streets, roads or alleys shall be considered non-contiguous tracts. This rule does not require that existing office or apartment buildings separate the services to each office or apartment in the individual buildings.

Given the Commission's current Rules, permitting a single net metering customer/owner to aggregate multiple, separately-metered premises would be a deviation from long-standing metering policy in the State. Meter aggregation is usually prohibited in order to protect the integrity of a utility's rate design by

ensuring each customer is paying the appropriate fixed/demand charges that are typically applied on a per customer account basis. These fixed charges are designed to recover and reflect some or all of the non-variable cost to serve. Thus, aggregating the meters of net metering customers would serve to exacerbate rather than relieve the cross-subsidy from non-generating customer to self-generating customers.

As with current policy, exceptions to the above rule may be granted by the Commission on a case-by-case basis when the circumstances warrant. MPC sees no benefit to reversing long-time Commission policy on this issue.

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

The Net Metering Rule as currently written will accommodate new distributed energy resources to the extent those resources are considered a renewable energy source and are located behind the customer's meter. However, generally speaking, battery storage would not be one of those systems. Electricity purchased from the utility or generated on the customer's premises by a distributed energy resource (e.g., solar panels) will be used to charge the battery. Energy stored in the battery can then be used to provide electricity for the customer, without creating additional energy that can be flowed back on the system. To the extent a battery system is configured to permit energy to be exported to the grid directly from the battery, a determination would need to be made as to whether this transaction would be governed by Mississippi's Net Metering Tariffs or CSPP.

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

MPC, customers and installers have been successful in working through the implementation of all of requirements of the Net Metering Rule. To date, very few issues have been raised, and, to MPC's knowledge, have been adequately resolved through direct communication among the stakeholders. At this time, the Joint Solar Safety and Net Metering Working Group should continue in its role of providing a communication forum for regulators and the utilities to discuss discrete administrative, safety or technical challenges that have been experienced so that best practices can be developed and shared across the state to the benefit of all stakeholders.

**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?**

Given the current cost of solar power facilities, maximizing the tax benefits available to solar power often make or break the economic viability of solar development. Because public schools, state and local government bodies as well as

other non-profit or tax-exempt entities lack the ability to directly take advantage of federal investment tax credits, alternative arrangements and programs must be used. In addition, the up-front capital cost of solar development make participation by many of these same entities more difficult because of tight budgets and a lack of available financing options. Some states have addressed these issues by incentivizing utilities that implement community solar programs to require or encourage a minimum level subscription by schools, governmental entities and non-profits.

Another barrier to entry has been a lack of expertise with these entities that creates an overall hesitancy to seriously evaluate renewable energy options. MPC has made efforts to engage with these entities to educate them on renewable energy options and possible adoption strategies that can be employed within the specific constraints that may apply.