

1 PREPARED DIRECT TESTIMONY

2 OF

3 TIM MARTIN

4

5 1. Q. PLEASE STATE YOUR FULL NAME AND BUSINESS ADDRESS.

6 A. My name is Tim Martin, and my business address is 155 N. Hwy 113, Carrollton,  
7 Georgia 30117.

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9 2. Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

10 A. I am the Chief Operating Officer (COO) for Carroll Electric Membership  
11 Cooperative (Carroll EMC).

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13 3. Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND.

14 A. I graduated from the Georgia Institute of Technology in 1992 with a Bachelor of  
15 Industrial Engineering degree. I obtained a Master of Business Administration  
16 (MBA) degree from the University of West Georgia in 2008.

17

18 4. Q. PLEASE STATE YOUR PROFESSIONAL EXPERIENCE.

19 A. I am a licensed Professional Engineer in the state of Georgia (2002) and I have  
20 worked at Carroll EMC for the past nine years in progressively more responsible  
21 positions. As COO, I am responsible for the operation and maintenance of  
22 Carroll EMC's electric distribution system from the substation to the meter. It is  
23 also my responsibility to ensure a reliable, safe and economical distribution  
24 system for our members. I produce annual load and revenue forecasts and handle

1 rate design for the cooperative. Recently, I directed the installation of a system-  
2 wide TWACS / ACLARA Advanced Metering Infrastructure (AMI) system. I  
3 also manage Carroll EMC's demand side management program.  
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5 5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

6 A. The purpose of my testimony is to discuss the new Public Utility Regulatory  
7 Policy Act (PURPA) Standards on Integrated Resource Planning (Section  
8 111(d)(16)), Rate Design Modifications (Section 111(d)(17)), Smart Grid  
9 Investment (Section 111(d)(18)), and Smart Grid Information (Section  
10 111(d)(19)), as amended by the Energy Independence and Security Act of 2007  
11 (EISA) and how each of these new PURPA Standards affects Carroll EMC.  
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13 **New PURPA Standard on Integrated Resource Planning (Section 111(d)(16))**

14 6. Q. PLEASE DESCRIBE THE PURPA STANDARD ON INTEGRATED  
15 RESOURCE PLANNING (Section 111(d)(16)).

16 A. This new PURPA Standard (Section 111(d)(16)) requires affected utilities to  
17 consider and determine: 1) whether energy efficiency resources should be  
18 integrated into the utility's integrated resources planning (IRP) efforts; and 2)  
19 whether or not to adopt policies establishing cost-effective energy efficiency  
20 alternatives as "priority" resources.

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22 Integrated resource plans (IRPs) typically involve utilities that are supplying  
23 power and energy to other utilities and/or customers directly. IRPs are not usually  
24 required of independent distribution utilities or cooperatives such as Carroll EMC.

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7. Q. CAN CARROLL EMC IMPLEMENT THIS NEW PURPA STANDARD ON INTEGRATED RESOURCE PLANNING (Section 111(d)(16))?

A. Yes, Carroll EMC already implements this standard. Carroll EMC obtains their power supply energy resources for their members through several long-term contractual agreements and purchases that extend through 2014 and beyond. Carroll EMC has recently completed additional contractual arrangements for long-term power supply provisions that will meet much of their future needs; however, not all of their projected needs are fulfilled through these arrangements. The load forecasts used by Carroll EMC reflect the Carroll EMC energy efficiency and demand-side management (DSM) programs and initiatives that are already in place.

As Carroll EMC considers energy efficiency and DSM programs with their current power supply arrangements, these individual programs, both existing and potentially new initiatives, are compared to the contractual power supply contracts on a program-by-program basis. Carroll EMC periodically evaluates energy efficiency and DSM programs that could integrate with their power supply efforts. Carroll EMC's planning approach also provides for updated evaluations and implementation of cost-effective energy efficiency and DSM programs on a priority basis for its members.

Thus, Carroll EMC does not need to adopt the new PURPA Standard on Integrated Resource Planning (Section 111(d)(16), including both Parts (A) and

1 (B)) because its current resource planning efforts already integrate and effectively  
2 evaluate energy efficiency alternatives on a priority basis.

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4 8. Q. DOES THIS NEW PURPA STANDARD ON INTEGRATED RESOURCE  
5 PLANNING (Section 111(d)(16)) ADVANCE THE THREE GOALS OF  
6 PURPA?

7 A. Yes, this new PURPA Standard on Integrated Resource Planning (Section 111  
8 (d)(16)) advances the three PURPA goals – encouraging the conservation of  
9 energy, improving the efficiency of utility electric facilities and providing  
10 equitable rates for utility customers/members. Energy efficiency resources, by  
11 definition, help to conserve energy. Whether or not energy efficiency resources  
12 promote the efficient use of utility facilities and can be provided with equitable  
13 rates in the long run can best be determined through the measurement and  
14 verification of energy efficiency programs over an extended period of time.

15 9. Q. SHOULD CARROLL EMC ADOPT THE NEW PURPA STANDARD ON  
16 INTEGRATED RESOURCE PLANNING (Section 111(d)(16))?

17 A. No. Carroll EMC does not need to adopt this new PURPA Standard (Section  
18 111(d)(16), including both Parts (A) and (B)), because Carroll EMC already  
19 performs DSM and resource planning activities that incorporate energy efficient  
20 alternatives on a priority basis. In my professional opinion, these existing  
21 programs comply with the IRS Standard and appropriately serve to accomplish  
22 the three goals of PURPA.

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24 **New PURPA Standard on Rate Design Modifications (Section 111(d)(17))**

1 10. Q. PLEASE DESCRIBE THE NEW PURPA STANDARD ON RATE DESIGN  
2 MODIFICATIONS (Section 111(d)(17)).

3 A. This new PURPA Standard (Section 111(d)(17)) calls for affected utilities to  
4 consider and determine, in General (A), whether the utility’s electric rates “(i)  
5 align utility incentives with the delivery of cost effective energy efficiency; and  
6 (ii) promote energy efficiency investments”. While generally this Standard is  
7 concerned with the utility providing incentives and promoting energy efficiency,  
8 this Standard also specifically requires that utilities consider and make a  
9 determination on the following six Policy Options (B):

10 Policy Option 1. “(i) removing the throughput incentive and other regulatory  
11 and management disincentives to energy efficiency”;

12 Policy Option 2. “(ii) providing utility incentives for the successful  
13 management of energy efficiency programs”;

14 Policy Option 3. “(iii) including the impact on adoption of energy efficiency  
15 as one of the goals of retail rate design, recognizing that energy efficiency  
16 must be balanced with other objectives”;

17 Policy Option 4. “(iv) adopting rate designs that encourage energy efficiency  
18 for each customer class”;

19 Policy Option 5. “(v) allowing timely recovery of energy efficiency related  
20 costs”; and

21 Policy Option 6. “(vi) offering home energy audits, offering demand response  
22 programs, publicizing the financial and environmental benefits associated  
23 with making home energy efficiency improvements, and educating  
24 homeowners about all existing Federal and State incentives, including the

1 availability of low-cost loans, that make energy efficiency improvements  
2 more affordable.”

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4 11. Q. DOES CARROLL EMC SUPPORT THE GENERAL OBJECTIVES OF THE  
5 RATE DESIGN MODIFICATIONS STANDARD IN SECTION 111 (d) (17)?

6 A. Yes, Carroll EMC does support the objectives and is already incorporating each  
7 of the Policy Options in its retail rate designs and programs, to the extent  
8 economic and otherwise appropriate for its members.

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10 12. Q. PLEASE DESCRIBE HOW EACH OF THE SIX POLICY OPTIONS HAS  
11 BEEN ADDRESSED OR WILL BE CONSIDERED BY CARROLL EMC.

12 A. Policy Option 1 – Removing the Throughput Incentive, etc. It should first be  
13 noted that, as a member-owned cooperative, Carroll EMC does not have an  
14 inherent motivation to make a profit. Rather, it is management’s responsibility to  
15 provide safe and reliable electric service at the lowest possible cost, and thus  
16 provide value to its members. Management actually has an incentive, and a  
17 responsibility to its members, to invest in energy efficiency technologies and  
18 programs wherever cost-effective. Therefore, by definition, distribution  
19 cooperatives such as Carroll EMC do not have fundamental regulatory or  
20 management disincentives to investing in energy efficiency. Any “throughput  
21 incentive” that might exist in rate design (that allows a utility to recover  
22 additional fixed costs as consumption increases) should not have a significant  
23 impact – positively or negatively – on investment by the cooperative in energy

1 efficiency. Rather, any potential investment in efficiency would be evaluated on  
2 its stand-alone ability to provide benefits to the membership.

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4 Our consultants tell us that Carroll EMC is not unlike most electric distribution  
5 utilities in that we do not have complete alignment of costs and rates. In some of  
6 our rate classifications there is a small portion of fixed cost that is recovered  
7 through the energy component of the rate (the energy charge). Carroll EMC has  
8 for some time, however, had a strategy in place to more closely align rates with  
9 actual costs. Our approach has been to gradually increase the monthly customer  
10 charge for residential customers until the appropriate amount of fixed costs are  
11 included. Our residential customer charge (rate schedule R-1) is currently at \$22  
12 per month, which is actually very close to the amount required for full fixed cost  
13 recovery through this rate component (based on recent cost of service studies). In  
14 fact, the monthly customer charge had been increased by \$2 each year from 2005  
15 through 2008, but was held level in 2009 since it is now very closely aligned with  
16 fixed costs.

17  
18 Carroll EMC has also been making changes to rates on the commercial side. In  
19 the General Service (GS) rate that applies to the majority of our commercial  
20 customers, Carroll EMC has increased the monthly customer charge to more fully  
21 recover fixed costs from this rate component – from \$20 per month in 1999 to \$35  
22 in 2002, to its current level of \$50. Further increases in the customer charge to  
23 commercial customers may occur as the result of future cost of service studies  
24 determine whether such increases are appropriate.

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As further described in the discussion of Policy Options 3 and 4, Carroll EMC’s rates are designed to encourage energy efficiency and conservation. Carroll EMC is committed to continuing to evaluate and adjust rates to more fully align costs with rates, and advance cost-effective energy conservation.

Policy Option 2 – Providing Program Incentives, etc. Based on comparisons of the costs to implement energy efficiency programs to the costs of power supply resources available through their existing contractual arrangements, Carroll EMC provides direct incentives/rebates/financial assistance for their existing energy efficiency and DSM programs. Currently the focus of Carroll EMC’s programs is on providing weatherization loans for qualifying members and on educating customers on how to use energy more wisely (as more fully detailed in Policy Option 6). Given the relatively low cost of power associated with our power supply, Carroll EMC has had difficulty in the recent past demonstrating the cost-benefit of many other energy efficiency programs to our membership. Carroll EMC does periodically review, evaluate and modify the levels of energy efficiency incentives. If, as the costs of power supply resources change, it appears economically feasible to offer additional energy efficiency programs to members I would certainly be prepared to recommend them to Carroll EMC’s Board. .

Policy Options 3 and 4 – Rate Design Goals, Structure, etc. While energy efficiency has not been an explicit goal of Carroll EMC’s rate design, rates have increasingly provided greater incentives for energy efficiency over time as Carroll

1 EMC has implemented its rate design strategy. Increasing the amount of fixed  
2 costs included in the customer charge component (as discussed in Policy Option  
3 1) is one example. Another example is the inclining block rate structure in place  
4 for residential customers. (Residential consumers constitute approximately 94%  
5 of our consumers and approximately 62% of our total KWh sales.) Retail energy  
6 prices to residential customers in the Summer (from June 1 to September 30)  
7 increase as energy usage increases. Carroll EMC is evaluating the price  
8 differential between these energy blocks in the Summer, and is considering  
9 recommending that they be increased even further. Although Winter residential  
10 rates still contain a declining block structures, Carroll EMC continues to monitor  
11 this structure and is prepared to reduce or eliminate the declining block structure  
12 based on its evaluation.

13  
14 Carroll EMC has also recently offered a pre-pay option to its residential  
15 customers. One of the benefits of such a program is that it makes customers more  
16 aware of their energy usage between billing periods, and actually informs them  
17 when they reach certain usage levels relative to their pre-paid amount. Studies  
18 have shown that customers that choose these payment alternatives reduce their  
19 overall energy usage, and are also more careful to use energy more efficiently.

20  
21 Additionally, Carroll EMC is considering offering Time of Use (TOU) and  
22 Critical Peak Pricing (CPP) rate options to residential customers. While not in  
23 place currently, these optional rates may be offered to members if there appears to  
24 be an appropriate level of member demand for such rates.

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Carroll EMC expects to continue evaluating the rates offered to members and the customer, demand, and energy charges associated with its various rate schedules in future years as it continues to implement its rate design strategy.

Policy Option 5 – Timely Cost Recovery, etc. This Policy Option primarily applies to the state commissions that regulate investor-owned utilities (IOUs) and allow IOUs to earn a regulated rate of return on assets in order to provide a return to shareholders. As described in Policy Option 1, Carroll EMC is owned by its member-customers. Consequently, Carroll EMC’s cost recovery schedules are determined by the member-consumers, in accordance with the limitations of applicable law, accounting principles, and contractual commitments. In essence, all of Carroll EMC’s costs must be recovered by its customers in a timely manner – including investments and programs associated with energy efficiency – if Carroll EMC is to provide maximum value to its members.

Policy Option 6 – Program Offerings, Promotion, Education, etc. Carroll EMC highly values a membership that is well informed on how to use energy efficiently. To that end, Carroll EMC readily provides information on the benefits of energy efficiency and educational tools to assist members as they seek to use electricity more wisely. The following are examples of how Carroll EMC promotes energy efficiency:

- Home Energy Suite, prominently displayed on Carroll EMC’s website, allows members to calculate the energy usage and costs for their home,

1 appliances, and lighting, as well as determine the impacts of implementing  
2 various energy efficiency measures (e.g., upgrading windows, changing  
3 out appliances, installing compact fluorescent lights).

- 4 • Energy Library, a separate part of the Home Energy Suite, provides  
5 members with information about energy usage for their home or business  
6 and offers tips on how to save energy.
- 7 • At the Annual Meeting, Carroll EMC gives all attendees Compact  
8 Fluorescent Lights (CFLs) and provides them with a packet of educational  
9 information to help them use energy more efficiently. There are also  
10 demonstrations at the annual meeting regarding energy use, such as a  
11 booth that compares the rate of electricity use from a single incandescent  
12 bulb to the equivalent from a CFL (where members can physically see the  
13 difference in the “spin” rate of one meter versus the other).
- 14 • Carroll EMC has produced a “Do It Yourself Home Energy Audit” DVD  
15 which we are making available to members in all of our offices. This  
16 DVD provides specific ideas on energy saving measures that homeowners  
17 can implement themselves (e.g., installing weather stripping).

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19 13. Q. CAN CARROLL EMC IMPLEMENT THIS NEW PURPA STANDARD ON  
20 RATE DESIGN (Section 111(d)(17))?

21 A. Partially. With the exceptions noted in the responses to Policy Options 1 and 5 in  
22 the previous question, Carroll EMC can implement this new PURPA Standard on  
23 Rate Design (Section 111(d)(17)) and is already doing so where appropriate.

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1 14. Q. DOES THIS NEW PURPA STANDARD ON RATE DESIGN  
2 MODIFICATIONS (Section 111(d)(17)) ADVANCE THE THREE GOALS OF  
3 PURPA?

4 A. Yes, this new PURPA Standard on Rate Design (Section 111(d)(17)) advances the  
5 three PURPA goals – encouraging the conservation of energy, improving the  
6 efficiency of utility facilities, and providing equitable rates for utility  
7 customers/members. Energy efficiency programs by definition encourage energy  
8 conservation and – particularly those that are demand side management  
9 alternatives – help improve the efficiency of utility facilities. Energy efficiency  
10 programs designed with incentives that are cost-effective to members, particularly  
11 when evaluated with the Ratepayer Impact Measurement (RIM) test, meet the  
12 PURPA goal of providing equitable rates.

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14 15. Q. SHOULD CARROLL EMC ADOPT THE NEW PURPA STANDARD ON  
15 RATE DESIGN MODIFICATIONS (Section 111(d)(17))?

16 A. No. Carroll EMC has considered all six Policy Options and has already adopted  
17 those that appropriately encourage energy conservation, optimize use of energy  
18 facilities and resources, and result in equitable consumer rates. Carroll EMC,  
19 therefore, does not need to adopt this new PURPA Standard, as written.

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21 **New PURPA Standard on Smart Grid Investments (Section 111(d)(18))**

22 16. Q. PLEASE DESCRIBE THE NEW PURPA STANDARD ON SMART GRID  
23 INVESTMENTS (Section 111(d)(18)).

1           A.     This new PURPA Standard is directed at states (i.e., regulatory agencies). They  
2                    are to consider whether it is appropriate: (1) to require utilities to consider smart  
3                    grid investments before investing in any grid technology; (2) to authorize  
4                    recovery of capital and O&M expenditures related to smart grid deployments; and  
5                    (3) to authorize timely recovery of the remaining book value of any equipment  
6                    rendered obsolete as a result of deployment of a qualified smart grid system.  
7                    Obviously, as drafted, the legislation cannot be implemented by cooperatives such  
8                    as Carroll EMC that are unregulated and do not have investor return concerns.

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10   17.    Q.     HOW IS “SMART GRID” DEFINED IN THE LEGISLATION?

11           A.     While “smart grid” is not defined in the legislation, there are several  
12                    characteristics identified that provide a further understanding of the types of  
13                    investments that are to be considered. For example, EISA characterizes the smart  
14                    grid as one that reflects:

- 15                    a) an increased use of digital information and controls technology;
- 16                    b) dynamic grid optimization;
- 17                    c) deployment and integration of distributed resources and generation  
18                        (including renewables);
- 19                    d) development and incorporation of demand response, demand-side  
20                        resources, and energy efficiency resources;
- 21                    e) real-time, automated, interactive technologies that optimize the physical  
22                        operation of appliances and consumer devices, etc.;
- 23                    f) integration of “smart” appliances and consumer devices;

- g) deployment and integration of advanced electricity storage and peak shaving technologies, including plug-in hybrids;
- h) timely information and control options provided to consumers; and
- i) development of standards for communication and interoperability of appliances and equipment interconnected with the distribution grid.

The National Rural Electric Cooperative Association (NRECA) recently offered a good definition in a webinar presentation related to the new PURPA standards. They defined smart grid as: “a collection of technologies including AMI (*Automatic Metering Infrastructure*) and distribution automation integrated through an effective communications infrastructure and software tools to provide enhanced value and services to members.”

18. Q. CAN CARROLL EMC IMPLEMENT THIS NEW PURPA STANDARD ON SMART GRID INVESTMENTS (Section 111(d)(18))?

A. No. While Carroll EMC is not capable of implementing this standard as drafted (since the standard is directed at the states), Carroll EMC is in favor of employing smart grid technology wherever it is cost-effective. Carroll EMC currently evaluates all technologies, including smart grid technologies, prior to making any investments, and our staff fully intends to continue this practice. While this does not guarantee that smart grid technologies will be selected, Carroll EMC has fairly evaluated and implemented smart grid technologies in the past whenever it was reasonable to do so. Carroll EMC’s recent deployment of a TWACS Automatic Meter Reading (AMR) system throughout our service territory is a recent example. With respect to the second and third considerations to be made

1 by the states (recovery of new investment and recovery of stranded investment),  
2 as a member-owned cooperative, Carroll EMC does not have a profit motivation,  
3 or investors that desire/require a rate of return on equity. Ultimately, Carroll  
4 EMC's members are the only source of money to fund new investments (or to pay  
5 for stranded investments) and, therefore, decisions on when and where to  
6 implement smart grid technologies must be made based on the overall interests of,  
7 and benefits provided to, the membership.  
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10 19. Q. DOES THIS NEW PURPA STANDARD ON SMART GRID INVESTMENTS  
11 (SECTION 111(d)(17)) ADVANCE THE THREE GOALS OF PURPA?

12 A. Yes. By definition, appropriately utilized smart grid technologies will promote  
13 conservation and the efficient use of facilities (the first two purposes).  
14 Implementation of smart grid technologies will continue to promote equitable  
15 rates (the third purpose) provided that the costs and benefits of the respective  
16 smart grid investments are borne by the same group of members.  
17

18 19. Q. SHOULD CARROLL EMC IMPLEMENT THIS NEW PURPA STANDARD  
19 ON SMART GRID INVESTMENTS (SECTION 111(d)(16))?

20 A. No, since Carroll cannot reasonably implement this Standard as written.  
21 However, as discussed in the answer to the previous question, Carroll EMC's  
22 evaluation and implementation of smart grid investments/technologies reflect full  
23 compliance with the intent of this Standard.  
24

1 **New PURPA Standard on Smart Grid Information (Section 111(d)(19))**

2 21. Q. PLEASE DESCRIBE THE NEW PURPA STANDARD ON SMART GRID  
3 INFORMATION (Section 111(d)(19)).

4 A. This new PURPA Standard (Section 111(d)(19) requires that affected utilities  
5 consider and determine whether their electricity customers should be provided  
6 direct written or electronic access to information concerning:

- 7 • time-based electricity prices at wholesale ((19)(B)(i)(I));
- 8 • time-based electricity prices at retail ((19)(B)(i)(II));
- 9 • the customer's actual usage ((19)(B)(ii));
- 10 • the customer's actual daily usage and pricing (hourly pricing and usage,  
11 where available), and day-ahead price projections ((19)(B)(iii)); and
- 12 • the sources of power provided by the utility, including the greenhouse gas  
13 (GHG) emissions associated with each type of generation source  
14 ((19)(B)(iv)).

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16 22. Q. PLEASE DESCRIBE HOW ASPECTS OF THIS STANDARD REGARDING  
17 INFORMATION ON THE *WHOLESALE* ELECTRICITY MARKET  
18 ((19)(B)(i)(I)) AFFECT CARROLL EMC.

19 A. Carroll EMC obtains wholesale power supply energy resources under long-term  
20 contractual arrangements. These long-term contractual arrangements with our  
21 power supply providers do not allow wholesale electricity price information to be  
22 released by Carroll EMC or to be made publicly available. Were Carroll EMC to  
23 make such information available to its members, we would be in violation of  
24 these contractual arrangements.

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23. Q. PLEASE DESCRIBE HOW ASPECTS OF THIS STANDARD REGARDING *RETAIL PRICING INFORMATION* ((19)(B)(i)(II) and (19)(B)(iii)) AFFECT CARROLL EMC.

A. Carroll EMC’s retail rates are not day-ahead price based, so there are no day-ahead hourly retail price signals to provide. Additionally, there is not an hourly day-ahead wholesale market upon which Carroll EMC could construct reasonable day-ahead retail price signals. Therefore, it is not practical for Carroll EMC to provide day-ahead retail price information.

Carroll EMC is specifically considering offering a Critical Peak Pricing (CPP) rate option to its members. This rate option would provide a slightly reduced rate (as compared to the standard residential rate) for most hours, but a much higher rate for the highest demand hours from June through August. Implementation of this rate would require that members selecting this rate be notified in advance of the peak hour(s) to which the higher rate would apply. Should this rate option be put in place (contingent on completion of our analysis and final staff/Board approval), then Carroll EMC would be providing price signals as contemplated by this standard to those members selecting this rate option.

24. Q. PLEASE DESCRIBE HOW ASPECTS OF THIS STANDARD REGARDING *CUSTOMER USAGE INFORMATION* ((19)(B)(ii) and (19)(B)(iii)) AFFECT CARROLL EMC.

1           A.     Carroll EMC currently provides usage information in kilowatt-hours (kWh) to all  
2                   customers for each billing period on their respective customer billing statements.  
3                   Information for the current billing period is provided, as well as for the previous  
4                   billing period and the same billing period in the prior year for comparison  
5                   purposes. Since Carroll EMC has recently deployed TWACS meters throughout  
6                   its service territory, some customers are now provided access to their usage  
7                   information via the internet, and this information is updated on a daily basis. Also,  
8                   customers choosing the recently offered prepay option can access up-to-date  
9                   information on their usage via a website called myusage.com. When practicable,  
10                  Carroll EMC may extend this functionality to more of its members in the future  
11                  based on evaluation of the costs and benefits to the membership.

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13   25.    Q.     PLEASE DESCRIBE HOW ASPECTS OF THIS STANDARD REGARDING  
14                   INFORMATION ON *SOURCES OF POWER*, INCLUDING GREENHOUSE  
15                   GAS EMISSIONS ((19)(B)(iv)) AFFECT CARROLL EMC.

16           A.     Currently, the nature of Carroll EMC's wholesale power arrangements makes it  
17                   impractical to provide this information. In many of the contractual arrangements,  
18                   Carroll EMC's power providers have discretion to provide power from a variety  
19                   of generating resources (which are not specifically made known to Carroll EMC)  
20                   as well as from power purchases in which specific generating resources may not  
21                   be identified even to Carroll EMC's power provider. Carroll EMC cannot  
22                   provide this information to its members, since the specific generating assets  
23                   actually providing the power are not fully known, let alone the actual portion of

1 generation from specific generating assets attributable to Carroll EMC (as  
2 opposed to other purchasers of output from these same resources).

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4 26. Q. SHOULD CARROLL EMC ADOPT THIS NEW PURPA STANDARD ON  
5 SMART GRID INFORMATION (Section 111(d)(19)?

6 A. No.

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8 27. Q. DOES THIS NEW PURPA STANDARD ON SMART GRID INFORMATION  
9 (SECTION 111(d)(19) ADVANCE THE THREE GOALS OF PURPA?

10 A. Perhaps. The information outlined in this new PURPA Standard on Smart Grid  
11 Information (Section 111(d)(19) may or may not meet the goals of PURPA.  
12 While some of this information may help customers to conserve energy, it is  
13 generally unknown if providing the various types of information to customers is  
14 directly correlated to the conservation of energy. Clearly, one would reasonably  
15 expect a direct linkage between retail pricing and conservation, but even this  
16 linkage implicitly assumes that the price signal is perceived as “high” by the  
17 consumer and that there is reasonable price elasticity during this period (i.e., the  
18 customer is motivated to change behavior and has the means to reduce  
19 consumption). Merely providing the other types of information contemplated by  
20 this Standard – wholesale prices, greenhouse gases, and even customer usage  
21 information – has not yet been determined to be correlated to energy  
22 consumption. Therefore, it is inconclusive if the first goal of PURPA – the  
23 conservation of energy – will be met via this Standard.

24

1 Similarly, if providing customers with such information clearly results in  
2 customers using electricity more efficiently (such that utility facilities are  
3 operated more in a more efficient manner), then the second goal of PURPA would  
4 be met. However, the results on customer behavior of providing these various  
5 pieces of information are not known with any degree of certainty.

6  
7 With respect to the third goal of PURPA, how the costs and benefits associated  
8 with implementing this Standard might be attributed (or allocated) among  
9 customer groups, has not yet been determined. Therefore, it is not known at this  
10 time whether equitable rates could be implemented, and the potential of this  
11 Standard to advance the third PURPA goal is also unknown.

12  
13 28. Q. CAN CARROLL EMC IMPLEMENT THIS NEW PURPA STANDARD ON  
14 SMART GRID INFORMATION (Section 111(d)(19)?

15 A. No. With respect to *wholesale* information contemplated by this Standard,  
16 Carroll EMC cannot implement the Standard and be in compliance with their  
17 contractual power supply agreements. From a practical standpoint, the *retail*  
18 pricing information contemplated by this Standard cannot be provided, since  
19 Carroll EMC does not offer real-time rate options to its members and – unlike  
20 some other regions in the United States – there is not a regional market structure  
21 in place in the Southeast that provides hourly pricing signals on a day-ahead basis.  
22 Carroll EMC can, and does, provide much of the *customer usage* information  
23 contemplated by this Standard to many members and has plans to extend this  
24 functionality to other groups of members when it becomes technically feasible

1                   and cost-effective to do so. Regarding the *sources of power* information, Carroll  
2                   EMC cannot provide the information as contemplated by this Standard, since the  
3                   specific sources of generation, and the amount of generation from these sources,  
4                   that actually provide power to Carroll EMC are not known.

5

6   29.   Q.    DOES THIS CONCLUDE YOUR TESTIMONY?

7           A.    Yes it does.