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APR 28 2023  
BY: Tina Kitchens

**Direct Testimony of  
David H. Purcell  
Director, Energy Consulting Group (ECG)**

**On behalf of Respondent  
Central Georgia Electric Membership Corporation**

**Demand Response Practices (26 U.S.C. 2621(d)(20))  
Public Utility Regulatory Policies Act of 1978,  
As amended by the Energy Policy Act of 2005.**

**Pre-filed: April 28, 2023**

**I. INTRODUCTION**

1 **Q. PLEASE GIVE YOUR NAME AND OCCUPATION.**

2 A. My name is David Purcell. I am the Director of Energy Market Forecasting with  
3 Energy Consulting Group (ECG), an energy management firm which manages all  
4 wholesale power purchases for Central Georgia EMC (CGEMC).

5 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND EMPLOYMENT**  
6 **HISTORY.**

7 A. I graduated from the University of Georgia with a bachelor's degree in business  
8 administration having majored in accounting. Upon graduation in 1981, I accepted  
9 employment with the State of Georgia in the State Auditor's Office. I spent almost four  
10 years there as a management analyst. I was responsible for completing performance  
11 audits of various state agencies, departments, and programs. After leaving the State  
12 Auditor's Office I worked for Oglethorpe Power Corporation for 17 years in a variety  
13 of roles. I began in the auditing department, followed by stints in accounting, finance,  
14 and then corporate planning. Job duties included audits of contracts related to co-  
15 owned power plants, developing 30-year forecasts using the corporate model, initiating  
16 the company's benchmarking program, and analyses of operational metrics. I have  
17 been employed by Energy Consulting Group since 2002. At Energy Consulting Group,  
18 I have worked primarily on forecasting future power costs for some of the electric  
19 membership cooperatives in Georgia. Projections of power costs include forecasted  
20 load, fixed costs, and energy costs for existing and planned electric power resources. In  
21 addition, I evaluate potential new resources including those powered by coal, natural  
22 gas, nuclear, hydro, wind, and solar, and determine their expected impact on fixed and

1 variable costs for EMCs that ECG serves. As a part of the evaluation and forecasting  
2 process I consider the expected cost impact of demand response programs, energy  
3 storage, and the retirement of any existing resources.

4 **Q. PLEASE DESCRIBE YOUR DUTIES AND RESPONSIBILITIES AS**  
5 **DIRECTOR.**

6 A. In my capacity as Director I produce power cost projections reflecting the operating  
7 and fixed costs of the anticipated mix of resources chosen to supply the load forecasts  
8 of our member EMCs.

9 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

10 A. In my testimony, I will describe the benefits and costs associated with demand rates  
11 and the impact that they will have on resources and resource costs.

12 **Q. WHAT IS THE IMPACT OF DEMAND BASED RATES ON ACTIONS OF**  
13 **RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL CUSTOMERS AND**  
14 **WHAT EFFECT WILL DEMAND BASED RATES HAVE ON THESE**  
15 **CUSTOMERS?**

16 A. All the EMCs in Georgia who are served by Georgia Systems Operations Corporation  
17 (GSOC) and Georgia Transmission Corporation (GTC), including CGEMC, have costs  
18 from those entities allocated based on each EMC's contribution to the system peaks of  
19 GTC and GSOC. GSOC determines planning resource requirements and GTC allocates  
20 network transmission costs based on CGEMC's loads at the time of overall system  
21 peaks. In the Georgia EMC market, this ensures that the energy managers and EMCs  
22 are focused on managing demand response at the residential, commercial, and  
23 industrial levels. Since capacity resource cost and transmission have a significant

1 impact to an EMC's fixed costs, Central Georgia EMC (CGEMC) is focused on  
2 minimizing the impact on peak days. The EMC can react at a utility level, and also  
3 empower customers to react at the residential level. CGEMC incentivizes residential  
4 customers who voluntarily participate in their direct load control program which aims  
5 to manage loads during peak periods. For large commercial and industrial customers  
6 (Greater than 900 kW connected load), CGEMC can develop custom rates by customer,  
7 which can be designed to aid the EMC in avoiding peak demand. CGEMC offers  
8 rebates for energy efficient appliances, including rebates for electric water heaters and  
9 heat pumps. Such appliances can aid in spreading demand costs over more kWhs, thus  
10 reducing their impact, or can serve to limit demand during peak periods. Today's  
11 technologies may enable the utility to send push alerts to customers to advise them to  
12 voluntarily limit their energy consumption during peak and high cost periods. EMCs  
13 are not for profit entities. CGEMC rates are set to recover the costs to serve the load  
14 and pay for the power resources required. CGEMC has every incentive to keep power  
15 costs as low as possible, since it makes up the majority of EMCs rate to consumers.

16 **Q. DOES THIS DEMAND RESPONSE PRACTICES STANDARD REQUIRE**  
17 **CENTRAL GEORGIA EMC TO OFFER DEMAND RESPONSE RATES OR**  
18 **PRACTICES TO ALL OF ITS MEMBERS?**

19 A. No. PURPA requires Central Georgia EMC to "consider each standard" and then the  
20 non-regulated utility "make a determination concerning whether it is appropriate to  
21 implement such standard" (section 111(a)). PURPA also states that "nothing in this  
22 subsection prohibits any non-regulated electric utility from making any determination  
23 that it is not appropriate to implement any such standard" (section 111(a)).



1 Q. **WHAT ARE CENTRAL GEORGIA EMC'S OPTIONS?**

2 A. After consideration of the standard, Central Georgia EMC may implement the standard,  
3 decline to implement the standard, or adopt a different or modified standard from those  
4 described in the statute (section 117 (b)).

5 Q. **DOES THE DEMAND RESPONSE PRACTICE HAVE A DESCRIPTION OF  
6 WHAT CONSIDERATION MUST BE GIVEN TO THE STANDARD?**

7 A. Yes. The Central Georgia EMC Board must consider the evidence for each standard in  
8 relationship to the three purposes of PURPA. The three purposes are (1) conservation  
9 of energy supplied by electric utilities, (2) optimal efficiency of electric utility facilities  
10 and resources, and (3) equitable rates for electric consumers. The Board must consider  
11 implementing a Demand Response Practice to address periods of unusually high  
12 demand. However, the Board may choose not to implement a new Demand Response  
13 Practice if it acts to the detriment of some or all CGEMC members.

14 Q. **DOES THE DEMAND RESPONSE PRACTICE ACT TO THE DETRIMENT  
15 ANY OF THE PURPA PURPOSES?**

16 A. Demand Response practices may act to the detriment of the PURPA purposes by  
17 impacting the optimal efficiency of electric utility facilities and resources, and they may  
18 result in inequitable rates for electric consumers. The benefits of any such program  
19 must be balanced by costs incurred to implement and operate the program. Rate design  
20 practices by CGEMC should establish rates which equitably distribute costs and  
21 benefits of demand response programs. Complicated rate designs may equitably  
22 distribute costs and benefits but could result in low adoption by consumers. Simple  
23 rates may not equitably distribute such costs and benefits among consumers.

1 Q. **WHAT IS YOUR RECOMMENDATION TO THE CENTRAL GEORGIA EMC**  
2 **BOARD CONCERNING THE PURPA DEMAND RESPONSE STANDARD?**

3 A. My recommendation is that the Board advise staff to consider time of use rates which  
4 will provide value on peaks and during other times for all parties and continue to  
5 review and evaluate activities which allow the EMC to reduce or control peak demand  
6 that is seen by the OPC and GTC system. I further recommend that CGEMC  
7 implement a system to advise consumers during periods of peak usage so they may  
8 voluntarily limit their electric consumption during such periods.

9 Q. **DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

10 A. Yes, it does.

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13 I have provided this testimony on behalf of Central Georgia EMC.

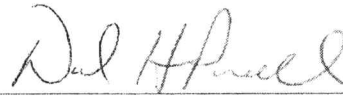
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