

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

**On behalf of Respondent
Snapping Shoals 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 Snapping Shoals EMC (SSEMC).

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

15 **Q. DOES THIS DEMAND RESPONSE PRACTICES STANDARD REQUIRE**
16 **SNAPPING SHOALS EMC TO OFFER DEMAND RESPONSE RATES OR**
17 **PRACTICES TO ALL OF ITS MEMBERS?**

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

23 **Q. WHAT ARE SNAPPING SHOALS EMC'S OPTIONS?**

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

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

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

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

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

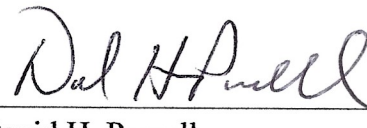
1 Q. **WHAT IS YOUR RECOMMENDATION TO THE SNAPPING SHOALS**
2 **BOARD CONCERNING THE PURPA DEMAND RESPONSE STANDARD?**

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 SSEMC implement
7 a system to advise consumers during periods of peak usage so they may voluntarily
8 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 Snapping Shoals EMC.
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17 David H. Purcell
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