

PHONE (850) 425-6654 FAX (850) 425-6694 WEB WWW.RADEYLAW.COM MAIL POST OFFICE BOX 10967 | TALLAHASSEE, FL 32302 OFFICE 301 SOUTH BRONOUGH ST. | STE, 200 | TALLAHASSEE, FL 32301

Email: sclark@radeylaw.com

July 12, 2019

VIA: ELECTRONIC FILING

Mr. Adam J. Teitzman Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

RE: FPSC Docket Nos. 20190015-EG, 20190016-EG, 20190018-EG, 20190019-EG, 20190020, 20190021-EG – Commission Review of Numeric Conservation Goals

Dear Mr. Teitzman:

Attached for filing in the above dockets is the Rebuttal Testimony of Mr. Terry Deason and Mr. Jim Herndon, both appearing as witnesses on behalf of the Florida Energy Efficiency and Conservation Act (FEECA) utilities: Florida Power & Light Company; Gulf Power Company; Duke Energy Florida, LLC; Orlando Utilities Commission; JEA; and Tampa Electric Company. Accordingly, Mr. Deason's Rebuttal Testimony and Exhibit and Mr. Herndon's Rebuttal Testimony should be filed as part of the record in each of the dockets indicated above in support of each utility's petition.

Thank you for your assistance in this matter.

Sincerely,

Susan I Clark

Susan F. Clark

SFC:plk Attachments

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the Rebuttal Testimony of Terry

J. R. Kelly

Deason and Jim Herndon on behalf of the FEECA utilities has been furnished by electronic mail

delivery this 12th day of July 2019 to the following:

Ashley Weisenfeld Margo DuVal Charles Murphy Rachael Dziechciarz Office of General Counsel **Florida Public Service Commission** 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850 aweisenf@psc.state.fl.us mduval@psc.state.fl.us cmurphy@psc.state.fl.us rdziechc@psc.state.fl.us

Allan J. Charles Joan Towles Matthews Terryann Adkins-Reid Brenda Buchan **Florida Department of Agriculture and Consumer Services** Office of General Counsel The Mayo Building 407 South Calhoun St., Suite 520 Tallahassee, FL 32399 allan.charles@FreshFromFlorida.com joan.matthews@FreshFromFlorida.com Terryann.Adkins-Reid@FreshFromFlorida.com Patty Christensen Thomas A. David A. Mireille Fall-Fry **Office of the Public Couns**el c/o The Florida Legislature 111 W. Madison Street, Room 812 Tallahassee, FL 32399 kelly.jr@leg.state.fl.us christensen.patty@leg.state.fl.us david.tad@leg.state.fl.us

fall-fry.mireille@leg.state.fl.us

William P. Cox Christopher T. Wright Florida Power & Light Company 700 Universe Blvd. Juno Beach, FL 33408-0420 will.cox@fpl.com christopher.wright@fpl.com

Paula K. Brown **Tampa Electric Company** Regulatory Affairs P. O. Box 111 Tampa, FL 33601-0111 <u>regdept@tecoenergy.com</u> Ken Hoffman **Florida Power & Light Company** 215 S. Monroe Street, Suite 810 Tallahassee, FL 32301 <u>ken.hoffman@fpl.com</u> James D. Beasley J. Jeffry Wahlen Malcom N. Means **Ausley McMullen** P.O. Box 391 Tallahassee, FL 32302 jbeasley@ausley.com jwahlen@ausley.com mmeans@ausley.com

Matthew R. Bernier **Duke Energy Florida, LLC** 106 East College Avenue, Suite 800 Tallahassee, FL 32301 <u>Matthew.Bernier@duke-energy.com</u>

Holly Henderson **Gulf Power Company** 215 South Monroe Street, Suite 618 Tallahassee, FL 32301-1804 holly.henderson@nexteraenergy.com

Russel A. Badders **Gulf Power Company** One Energy Place Pensacola, FL 32520 <u>Russell.Badders@nexteraenergy.com</u>

Christopher Browder Orlando Utilities Commission P. O. Box 3193 Orlando, FL 32802-3193 cbrowder@ouc.com

Robert Scheffel Wright John T. LaVia, III **Gardner, Bist, Bowden, Bush, Dee, LaVia & Wright, P.A.** 1300 Thomaswood Drive Tallahassee, FL 32308 <u>schef@gbwlegal.com</u> jlavia@gbwlegal.com Dianne M. Triplett **Duke Energy Florida, LLC** 299 1st Avenue North St. Petersburg, FL 33701 dianne.triplett@duke-energy.com

Robert Pickels **Duke Energy** 106 East College Avenue, Suite 800 Tallahassee, FL 32301-7740 <u>Robert.Pickels@duke-energy.com</u>

Steven R. Griffin Beggs & Lane P.O. Box 12950 Pensacola, FL 32591 srg@beggslane.com

Mike Cassel Florida Public Utilities Company 1750 S.W. 14th Street, Suite 200 Fernandina Beach, FL 32034-3052 mcassel@fpuc.com

Charles A. Guyton Beth Keating **Gunster Law Firm** 215 S. Monroe Street, Suite 601 Tallahassee, FL 32301-1804 cguyton@gunster.com bkeating@gunster.com

Gary V. Perko Brooke E. Lewis **Hopping Green & Sams, P.A.** P.O. Box 6526 Tallahassee, FL 32314 <u>garyp@hgslaw.com</u> <u>brookel@hgslaw.com</u> Jon C. Moyle, Jr. Karen A. Putnal Ian E. Waldick **Moyle Law Firm, P.A.** 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com kputnal@moylelaw.com jwaldick@moylelaw.com

Stephanie U. Eaton Spilman Thomas & Battle, PLLC 110 Oakwood Drive, Suite 500 Winston-Salem, NC 27103 seaton@spilmanlaw.com

Bradley Marshall Bonnie Malloy Jordan Luebkemann **Earthjustice** 111 S. Martin Luther King Jr. Boulevard Tallahassee, FL 32301 <u>bmarshall@earthjustice.org</u> <u>bmalloy@earthjustice.org</u> <u>jluebkemann@earthjustice.org</u> flcaseupdates@earthjustice.org

James W. Brew Laura A. Wynn **Stone Mattheis Zenopoulos & Brew, PC** 1025 Thomas Jefferson St., NW Ste 800 West Washington, D.C. 20007-5201 jbrew@smxblaw.com law@smxblaw.com Berdell Knowles JEA 21 West Church Street, Tower 16 Jacksonville, FL 32202-3158 knowb@jea.com

Derrick Price Williamson Barry A. Naum **Spilman Thomas & Battle, PLLC** 110 Bent Creek Boulevard, Suite 101 Mechanicsburg, PA 17050 <u>dwilliamson@spilmanlaw.com</u> <u>bnaum@spilmanlaw.com</u>

George Cavros Southern Alliance for Clean Energy 120 E. Oakland Park Boulevard, Suite 105 Fort Lauderdale, FL 33334 george@cleanenergy.org

/s/ Susan F. Clark

Attorney

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2	IN	NRE: COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS
3		DOCKET NO. 20190015-EG (Florida Power & Light Company)
4		DOCKET NO. 20190016-EG (Gulf Power Company)
5		DOCKET NO. 20190018-EG (Duke Energy Florida, LLC)
6		DOCKET NO. 20190019-EG (Orlando Utilities Commission)
7		DOCKET NO. 20190020-EG (JEA)
8		DOCKET NO. 20190021-EG (Tampa Electric Company)
9		
10		REBUTTAL TESTIMONY OF TERRY DEASON
11		JULY 12, 2019
12		
13	Q.	Please state your name and business address.
14	A.	My name is Terry Deason. My business address is 301 S. Bronough Street, Suite
15		200, Tallahassee, FL 32301.
16	Q.	By whom are you employed and in what capacity?
17	A.	I am employed by Radey Law Firm as a Special Consultant specializing in the fields
18		of energy, telecommunications, water and wastewater, and public utilities generally.
19	Q.	Please describe your educational background and professional experience.
20	A.	I have over forty years of experience in the field of public utility regulation spanning
21		a wide range of responsibilities and roles. I served a total of seven years as a
22		consumer advocate in the Florida Office of Public Counsel (OPC) on two separate
23		occasions. In that role, I testified as an expert witness in numerous rate proceedings

1		before the Florida Public Service Commission (Commission). My tenure of service
2		at OPC was interrupted by six years as Chief Advisor to Florida Public Service
3		Commissioner Gerald L. Gunter. I left OPC as its Chief Regulatory Analyst when
4		I was first appointed to the Commission in 1991. I served as Commissioner on the
5		Commission for sixteen years, serving as its chairman on two separate occasions.
6		Since retiring from the Commission at the end of 2006, I have been providing
7		consulting services and expert testimony on behalf of various clients, including
8		public service commission advocacy staff, county and municipal governments, and
9		regulated utility companies. I have also testified before various legislative
10		committees on regulatory policy matters. I hold a Bachelor of Science Degree in
11		Accounting, summa cum laude, and a Master of Accounting, both from Florida State
12		University.
13	Q.	For whom are you appearing as a witness?
14	A.	I am appearing as a witness for Florida Power & Light Company (FPL), Gulf Power
15		Company, Tampa Electric Company (TECO), Duke Energy Florida, LLC (Duke),
16		Orlando Utilities Commission (OUC), and JEA.
17	Q.	Have you previously submitted direct testimony in this proceeding?
18	A.	No.
19	Q.	Have you previously testified in proceedings regarding the setting of energy
20		conservation or demand side management goals by the Florida Public Service

- 21 **Commission**?
- A. Yes. I testified in Docket No. 130199-EI (Direct 4/2/2014 and Rebuttal Testimony
- 23 6/10/2014 Florida Power & Light Company's Petition for Approval of Numeric

1 Conservation Goals).

2 Q. Are you sponsoring any rebuttal exhibits?

- 3 A. Yes. I am sponsoring Exhibit JTD-1, which is my curriculum vitae.
- 4 Q. What is the purpose of your rebuttal testimony?

5 The purpose of my rebuttal testimony is to respond to many of the positions and A. recommendations contained in the testimony of Southern Alliance for Clean Energy 6 7 (SACE) Witnesses Jim Grevatt and Forest Bradley-Wright. Both of these witnesses 8 criticize a number of precedents and policies that have been traditionally and 9 successfully used in Florida to set appropriate Demand Side Management (DSM) 10 goals in compliance with the Florida Energy Efficiency and Conservation Act 11 (FEECA), Rule 25-17.0021, Florida Administrative Code (F.A.C.), and decisions of 12 the Florida Supreme Court. Their criticisms are unfounded, and their 13 recommendations are inappropriate, unnecessary, and contrary to Florida statutes 14 and Commission rules. In essence, they seek to have the Commission embark on a 15 path to inappropriately and arbitrarily increase DSM goals and increase rates for all customers. 16

17

Q. How is your rebuttal testimony organized?

A: My rebuttal testimony is organized into five sections. Section I addresses costeffectiveness and the intervenor witnesses' ill-advised suggestion to chiefly rely on the Total Resource Cost (TRC) test. Section II addresses cross-subsidizations and the intervenor witnesses' unfounded assertions that cross-subsidies can and should be disregarded when setting conservation goals. Section III addresses free-riders and the intervenor witnesses' recommendation to abandon the Commission's two-

	year payback screening criterion. Section IV addresses the SACE witnesses'
	overarching and misapplied contention that other utilities' DSM goals should be
	mimicked here in Florida. Section V is my conclusion.
	I. COST-EFFECTIVENESS
Q.	What has been the Commission's policy regarding cost-effectiveness
	determinations under FEECA?
A.	The Commission has had a long history of implementing FEECA in a manner that
	works to minimize rate impacts on all customers and prevent cross-subsidizations
	among customers. The Commission has relied primarily on the Rate Impact
	Measure (RIM) cost effectiveness test in order to help ensure these results. This
	approach has served Florida customers well for decades, with significant cumulative
	DSM savings and minimal, if any, upward pressure on base rates.
Q.	Why has the Commission primarily relied on the RIM test?
A.	The Commission appropriately determined it was important to implement FEECA
	consistent with its overarching responsibility to regulate in the public interest and to
	be consistent with other provisions in Chapter 366, Florida Statutes (F.S.). The RIM
	test was and remains the most appropriate test to achieve this regulatory consistency.
	The RIM test accounts for both the cost of incentives paid to program participants
	and the upward pressure on rates from unrecovered revenue requirements.
	Incentives paid to program participants are a cost of implementing and administering
	Q. Q. A.

1	the program and are passed on to the general body of customers through the Energy
2	Conservation Cost Recovery Clause (ECCR) charges for the investor-owned (IOU)
3	FEECA Utilities (FPL, Duke, TECO, and Gulf Power) or through general base rates
4	for OUC and JEA. Lost revenues reduce contributions toward covering fixed costs
5	and can therefore also have significant adverse impacts on a regulated utility's
6	ability to earn a reasonable return, which in turn puts upward pressure on rates for
7	the general body of customers. (There would be similar upward pressure on the
8	rates of OUC and JEA.) Both of these extremely important considerations and
9	ramifications are ignored by the TRC test. The Commission also recognized that
10	the use of TRC could result in cross subsidies between customers and could
11	disproportionately impact low-income customers. In its Order No. 94-1313-FOF-
12	EG, the Commission stated:
13	We will set overall conservation goals for each utility based on
14	measures that pass both the Participant and RIM tests We find
15	that goals based on measures that pass TRC but not RIM would
16	result in increased rates and would cause customers who do not

19

18

participate.

All customers, including low-income customers, should benefit from RIM-based DSM programs. This is because RIM-based programs ensure that both participating and non-participating customers benefit from utility-sponsored conservation programs.

participate in a utility DSM measure to subsidize customers who do

1 Additional generating capacity is deferred and the rates paid by low-

2 income customers are less than they otherwise would be.

3 Q. Has the Commission always used the RIM test to set DSM goals?

4 A. Essentially, yes. From the first time that the Commission set utility-specific 5 numerical goals way back in 1994 up until the 2009 goals proceeding, the Commission consistently relied on the RIM test to set appropriate goals consistent 6 7 with its rules and FEECA. (In fact, the Commission applied the RIM test in 8 evaluating utility DSM programs even before the 1993-94 goal-setting proceedings.) 9 However, in 2009, the Commission tested another approach by using the TRC test 10 to set goals for some of the FEECA Utilities. When the electric rate impacts to 11 customers of this approach (and other modifications to Commission policy) were 12 recognized, the Commission ultimately decided the rate impacts resulting from the 13 TRC test were too high for FPL and Duke. Consequently, the Commission required 14 FPL and Duke to implement DSM programs that had been determined to be cost-15 effective under the RIM test in a previous DSM proceeding. And in the most recent goals-setting proceeding in 2014, the Commission again used the RIM test and 16 17 reiterated its appropriateness.

18

19

Q.

discretion to use the RIM test to set goals?

A. Neither witness challenges the discretion of the Commission to rely on the RIM test to weigh the potential rate impacts of proposed goals. They do take issue with it being the primary test and assert that the RIM test is not actually a test of costeffectiveness.

Do Witnesses Grevatt and Bradley-Wright believe that the Commission has

1 (

2

Q. Is the RIM test an established cost-effectiveness test recognized for purposes of evaluating appropriate DSM goals?

3 A. Yes, it is generally recognized as such, both nationally and in Florida. Rule 25-4 17.008, F.A.C., references and incorporates the Florida Public Service Commission 5 Cost Effectiveness Manual (Manual). This Manual includes the RIM test, along with the Participant's test and the TRC test. The Manual does not prescribe the use 6 7 of one test to the exclusion of another. It appropriately gives the Commission 8 discretion to evaluate the various tests and use them accordingly. The Commission 9 has historically considered all the tests and has primarily relied upon the RIM test 10 (in conjunction with the Participant's test) to set appropriate DSM goals.

Q. On what basis does Witness Grevatt state that the RIM test is not an actual cost-effectiveness test?

A. He cites to the fact that the RIM test includes lost revenues as an element in its
calculation and opines that lost revenues do not constitute an actual cost. He further
opines that lost revenues only has relevancy as to the level of customers' rates and
not to customers' costs.

17 Q. Has the Commission previously addressed the question of costs vs. rates in 18 setting DSM goals?

- A. Yes, this is not a new issue. Other parties and other witnesses in previous goal setting proceedings have also tried to impose a narrow definition of "cost" that
 would preclude consideration of rate impacts and the RIM test. The Commission
 was faced with this very issue in a motion for reconsideration of Order No. PSC-94-
- 23 1313-FOF-EG filed by the Legal Environmental Assistance Foundation (LEAF). In

its Order No. PSC-95-0075-FOF-EG, the Commission denied LEAF's motion and
 reaffirmed its use of the RIM test, stating:

3 LEAF's argument that Rule 25-17.001(7), Florida Administrative 4 Code, uses the term "cost" in a fashion that mandates the use of the 5 TRC test to the exclusion of the Participant and RIM tests in setting 6 goals is at odds with the flexibility given under FEECA and 7 preserved in our conservation goals and conservation cost-8 effectiveness rules. LEAF construes the term "cost" as meaning 9 "bills" when the more plausible contextual interpretation is that 10 "cost" means "rates". There has been no Commission failure to 11 consider bill impact. We have chosen to keep rates lower for all 12 customers, lowering bills for non-participants and participants.

13 Q. Did this decision go to the Florida Supreme Court on appeal?

A. Yes. In an appeal by LEAF of this Order, the Court rejected LEAF's arguments
that the TRC test should have been used to the exclusion of the RIM test. The Court
affirmed the use of RIM and further found that the Commission was compelled by
Section 366.81, F.S., to consider the overall effect on rates and revenue requirements
that the RIM test afforded. The Court stated:

In instructing the Commission to set conservation goals for increasing energy efficiency and conservation, the legislature directed the Commission to not approve any rate or rate structure which discriminates against any class of customers. See § 366.81, Fla. Stat. (1993). The Commission was therefore compelled to

1		determine the overall effect on rates, generation expansion, and
2		revenue requirements. Based on our review of the record, we find
3		ample support for the Commission's determination to set
4		conservation goals using RIM measures. Accordingly, we affirm
5		the orders of the Commission.
6		Legal Environmental Assistance Foundation Inc. v. Clark, 668 So.2d 982 (Fla.
7		1996).
8	Q.	In addition to Section 366.81, F.S., cited by the Court, are there other
9		statements of the Florida Legislature's energy conservation policies that
10		support the use of RIM to set DSM goals?
11	A.	Yes, there are two. The first is set forth in Section 366.82(3)(b), F.S., and the second
12		is set forth in Section 366.82(7), F.S.
13	Q.	Please explain how these statutory policy provisions support the use of RIM.
14	A.	Section 366.82(3)(b), F.S., requires the Commission to consider "The costs and
15		benefits to the general body of ratepayers as a whole, including utility incentives and
16		participant contributions." In Florida, the phrase "costs and benefits to the general
17		body of ratepayers as a whole" has its roots in determining rates that are fair and
18		which do not pit the interests of one group of customers against those of another,
19		which could result in cross-subsidies. Its application results in the protection of all
20		customers as a whole. Only the RIM test ensures that all customers in the general
21		body of customers are protected from potential cross subsidies between participants
22		and non-participants in DSM programs. Thus, the policy established by this
23		statutory provision supports the use of RIM. Likewise, the requirement to consider

"utility incentives" supports the use of RIM. The TRC test ignores utility incentives
 paid to participating customers, while the RIM test appropriately considers the cost
 of such incentives. Thus, RIM is the best test to comply with this statutory
 requirement.

5

6 In Section 366.82(7), F.S., the Legislature grants the Commission "the flexibility to 7 modify or deny plans or programs that would have an undue impact on the costs 8 passed on to customers." As I stated previously, the Commission has determined 9 that the correct, appropriate policy criterion for addressing how conservation 10 program costs are passed on to customers is the impact on the level of their rates. 11 Since only the RIM test considers the impact on the level of customer rates, this 12 statutory provision also supports the use of RIM. In fact, it was this statutory 13 provision upon which the Commission relied to reject programs based on TRC for 14 FPL and Duke and to revert to programs based on RIM. The Commission ultimately 15 decided the rate impacts resulting from the TRC test were too high for these utilities. 16 For example, in its Order No. PSC-11-0346-PAA-EG, the Commission stated that 17 the plan filed by FPL based on the TRC-based goals was "projected to meet the 18 goals we previously established, but at a significant increase in the rates paid by FPL 19 customers." (page 4) It went on to find that the plan filed by FPL to meet its 2009 20 TRC-based goals would "have an undue impact on the costs passed on to consumers, 21 and that the public interest will be served by requiring modifications to FPL's DSM 22 Plan." (pages 4-5)

23

1 decision?

A. No. While it is clear that the adverse cost impacts to customers resulting from the
2009 TRC-based goals were unacceptable to the Commission, the Commission did
not change the goals it previously set. In its Order No. PSC-11-0590-FOF-EI
disposing of a protest to Order No. PSC-11-0346-PAA-EG, the Commission
reiterated that the goals based on TRC were not being changed:

7 Based upon the hearing record, briefs in opposition, and oral 8 argument, we find that the plain language of Section 366.82(7), F.S., 9 specifically and unequivocally grants us authority to modify a 10 company's DSM plans "at any time it is in the public interest 11 consistent with this act" or when plans or programs "would have an undue impact on the costs passed on to customers." Further, we 12 13 reiterate that we did not in any way change the DSM goals as set by 14 the goal setting order, Order No. PSC-09-0855-FOF-EG.

15

However, it should be noted that in the subsequent goals proceeding conducted in 2014, the Commission decided against setting goals based on TRC. Instead, the Commission adhered to its long-standing policy of setting goals based primarily on RIM. As a consequence, the Commission did not have to invoke Section 366.82(7) when approving programs to meet the 2014 goals as those goals did not have an undue impact on the costs passed onto customers. In its order establishing the 2014 goals, the Commission reiterated the appropriateness of the RIM test:

1	We find [it] appropriate to establish goals for the FEECA Utilities
2	based upon a cost-effectiveness analysis that allows all ratepayers,
3	participants and non-participants, to benefit from the Utilities' demand-
4	side management programs. Therefore, we find annual goals based
5	upon the unconstrained RIM achievable potential be adopted. As the
6	RIM test eliminates cross-subsidies, using an unconstrained RIM
7	allows for maximum participation by customers while keeping rates
8	equitable. (Page 40, Order No. PSC-14-0696-FOF-EU)

Q. Do you agree with the Commission's 2014 determination?

10 Yes, I do. This latest decision is consistent with the Commission's historical use of A. 11 the RIM test that recognizes the Commission's responsibility to regulate utilities and 12 set conservation goals in the overall public interest. It is consistent with Florida 13 Statutes, and is consistent with the decision of the Florida Supreme Court. This 14 decision shows the Commission's concern for and responsibility to the general body 15 of customers. This is evidenced by the fact that the RIM test is best suited to account 16 for the cost of incentives, to minimize rate impacts, and to avoid subsidies between 17 participating and non-participating customers.

Q. Witness Grevatt states that no other state relies on RIM to screen out efficiency measures. Should this be a basis to conclude that the RIM test is inappropriate for Florida?

A. No. Witness Grevatt draws an inappropriate inference to conclude that Florida
 should rely exclusively on the TRC test for goal-setting. First, what other states may
 or may not do is irrelevant when addressing the question of the appropriate cost-

1		effectiveness test to use in Florida. What is relevant is the direction provided by
2		Florida Statutes, Florida Commission Rules, and a decision of the Florida Supreme
3		Court. As I earlier explained, the Commission has consistently based its decision to
4		use the RIM test on this authority and precedent. In direct terms, the Commission
5		has applied the RIM test based on its determination and policy conclusion that DSM
6		measures should be cost-effective to all utility customers, whereas Witness Grevatt
7		would simply ignore this aspect of cost-effectiveness by defining it away. Second,
8		Florida's historical reliance on the RIM test has proven both appropriate and
9		beneficial for Florida customers.
10	Q.	Has Florida's historical reliance on the RIM test been proven to be effective
11		and beneficial in achieving FEECA's purposes and promoting the public
12		interest?
13	A.	Yes. Florida's historical reliance on the RIM test has resulted in a significant
14		amount of conservation achievements. This is shown by the following excerpt from
15		the Commission's December 2018 Annual Report on FEECA:
16		FEECA has been successful in reducing the growth rates of weather-
17		sensitive peak electric demand and conserving expensive fuel
18		resources. Since its inception, FEECA utility-sponsored DSM
19		programs have cumulatively saved 7,863 MW of summer peak demand
20		and 7,285 MW of winter peak demand, referenced in Table 3. This
21		reduction in peak demand has helped offset the use of peaking units
22		that rely on expensive fuel sources and deferred new generating

1		(GWh), enough electricity to power approximately 15,583 homes for a
2		year.
3		
4		These accomplishments were achieved by devoting substantial resources (\$3.9
5		billion for the years 2007-2017 for the five IOUs subject to FEECA) in a cost-
6		effective manner that has helped maintain reliability, save energy, reduce the need
7		for very large amounts of new generating plants, and minimize rate impacts.
8	Q.	What is your recommendation?
9	A.	I recommend that the Commission reject the position of the SACE witnesses to
10		primarily use the TRC test. I further recommend that the Commission continue its
11		beneficial and long-held use of the RIM test to set DSM goals for the FEECA
12		Utilities.
13		
14		II. CROSS-SUBSIDIZATIONS
15	Q.	Does Witness Grevatt address the issue of cross-subsidization?
16		
17	A.	Yes, he does, but to a limited degree and in his own way to promote his own agenda.
	A.	Yes, he does, but to a limited degree and in his own way to promote his own agenda. He generally acknowledges that cross-subsidies should be avoided, but he is
18	A.	Yes, he does, but to a limited degree and in his own way to promote his own agenda. He generally acknowledges that cross-subsidies should be avoided, but he is dismissive of cross-subsidization concerns when it comes to setting conservation
18 19	A.	 Yes, he does, but to a limited degree and in his own way to promote his own agenda. He generally acknowledges that cross-subsidies should be avoided, but he is dismissive of cross-subsidization concerns when it comes to setting conservation goals. As an excuse to disregard cross-subsidizations in setting DSM goals, he
18 19 20	Α.	 Yes, he does, but to a limited degree and in his own way to promote his own agenda. He generally acknowledges that cross-subsidies should be avoided, but he is dismissive of cross-subsidization concerns when it comes to setting conservation goals. As an excuse to disregard cross-subsidizations in setting DSM goals, he argues that cross-subsidies result from other regulatory decisions (including
18 19 20 21	Α.	Yes, he does, but to a limited degree and in his own way to promote his own agenda. He generally acknowledges that cross-subsidies should be avoided, but he is dismissive of cross-subsidization concerns when it comes to setting conservation goals. As an excuse to disregard cross-subsidizations in setting DSM goals, he argues that cross-subsidies result from other regulatory decisions (including decisions on supply-side alternatives). He states: "regulators approve rate increases
 18 19 20 21 22 	Α.	Yes, he does, but to a limited degree and in his own way to promote his own agenda. He generally acknowledges that cross-subsidies should be avoided, but he is dismissive of cross-subsidization concerns when it comes to setting conservation goals. As an excuse to disregard cross-subsidizations in setting DSM goals, he argues that cross-subsidies result from other regulatory decisions (including decisions on supply-side alternatives). He states: "regulators approve rate increases and make decisions in other proceedings regularly that create some level of inequity

goes on to argue that new investment is driven by new customers and gives examples
 of new substations and new power plants. He concludes that adding new customers
 and making investments to serve them discriminates against existing customers and
 results in cross-subsidizations.

5

Q.

Do you agree with his argument?

A. No. His argument is inconsistent with Florida's regulatory framework and his
examples of old customers subsidizing new customers is not factually correct.
Moreover, his premise that cross-subsidies can be ignored when setting DSM goals
is inconsistent with the Legislature's policies set forth in the Florida Statutes, the
Commission's development of those policies over the last four decades, and a
decision of the Florida Supreme Court affirming those policies.

12 Q. Please explain how his argument is inconsistent with Florida's regulatory 13 framework.

14 A. Regulation in Florida goes to great lengths to set rates which are fair, just, and 15 reasonable and which do not foster cross-subsidies between customers. This is apparent in both the nature of and the extent to which costs are recognized in rates, 16 17 as well as in the structure of the rates themselves. The Commission has rules dealing 18 with cost of service studies and many years of precedent to ensure that rates are set 19 equitably and on a non-discriminatory basis. The Commission also has a policy of 20 having cost causers pay their fair share of the costs they place on the system, 21 especially when they engage in actions or choose options which, if not specifically 22 recognized, would cause rates for the general body of customers to increase. All of 23 this is done to minimize cross-subsidies to the greatest extent possible. In this context, cross-subsidies of DSM program participants by non-participants are
 avoided by applying the RIM test; the program participants and non-participants all
 pay for the DSM program costs that are shown – by the RIM test – to benefit all
 customers.

5

6 Moreover, Florida plans and approves investments as part of a coordinated grid, 7 subject to the Commission's Grid Bill authority. It is generally understood that, 8 because the generation and transmission grid as a whole serves all customers, 9 increased investment in the grid as a whole benefits all customers, who then must 10 pay for such increased investment according to the cost of service studies and cost 11 allocations consistent with the rate class in which they take service. I do agree that 12 there is potentially a small but necessary level of averaging between customers of 13 the same class and that someone could argue, at some esoteric theoretical level, that 14 there is some cross-subsidization that remains at a very granular level. But this 15 simply attempts to confuse the practical with the perfect.

16

This is the important point: it is not the goal of regulation to intentionally make policy decisions that knowingly will result in cross-subsidies or increase some theoretical level of innate subsidies that could be argued to exist. To the contrary, it is the goal of regulation to prevent cross-subsidies whenever possible and the Florida Commission makes every reasonable effort to do so. It would be bad public policy to intentionally engage in an action that knowingly results in cross-subsidies. However, this is exactly what Witnesses Grevatt and Bradley-Wright would have the Commission do. They would have the Commission adopt a cost-effectiveness
 test, and DSM goals resulting from its application, that will knowingly result in
 cross-subsidies between participants and non-participants.

4 Q. Please explain how Witness Grevatt's example of old customers subsidizing 5 new customers is not factually correct.

6 A. His example of new substations and new power plants resulting in cross-subsidies 7 is overly simplistic and ignores real-world considerations. First, as I just described, 8 Florida plans for and approves such investments as part of a coordinated grid which 9 is designed to reliably and cost-effectively serve all customers (the general body of 10 customers). Second, his simplistic example ignores the fact that not all investments 11 serve new customers. Many investments are necessary to retire old plant, to meet 12 new reliability requirements (such as storm hardening), or to meet new 13 environmental requirements. Third, his attempt to pit "old" customers versus "new" 14 customers is misplaced because, as noted above, the grid as a whole serves all 15 customers as a whole. His argument would lead to then charging "old" customers 16 for the cost of facilities built to replace the "old" facilities that previously served 17 them; this is simply unworkable. Fourth, new customers provide a degree of vitality 18 to a system and provide a source of revenue over which fixed costs can be spread. 19 Moreover, this new growth provides opportunities to invest in new technologies 20 with higher efficiencies, lower maintenance costs, and lower environmental 21 footprints. This has the overall effect of putting downward pressure on customer 22 rates which benefits all customers.

23 Q. Please explain how Witness Grevatt's premise that cross-subsidies can be

2

ignored when setting DSM goals is inconsistent with FEECA and a decision of the Florida Supreme Court.

3 A. Section 366.81, F.S., sets out the Legislature's findings and intent regarding 4 FEECA. It requires the Commission, when establishing DSM goals, to "not approve 5 any rate structure which discriminates against any class of customers on account of the use of such facilities, systems, or devices." The Commission has historically 6 7 and appropriately implemented this statutory provision by setting goals that do not 8 discriminate against non-participants. As I described earlier, this interpretation was 9 appealed to the Florida Supreme Court. The Court affirmed the Commission's 10 interpretation and stated that the Commission was compelled to consider the rate 11 impacts on all customers. See Legal Environmental Assistance Foundation Inc. v. Clark, 668 So.2d 982 (Fla. 1996). The Commission simply does not have the option 12 13 to declare this statutory requirement to be irrelevant, as Witnesses Grevatt and 14 Bradley-Wright would have the Commission do.

Q. Has the Commission recognized that increased rates and cross-subsidies could result from use of the TRC test?

A. Yes. The Commission has consistently recognized that the TRC test does not consider lost revenues and the impact lost revenues can have on customer rates. A good example of this is contained in Order No. 94-1313-FOF-EG, which I earlier referenced and which led to the Supreme Court decision I just described. In addition, the Commission's order from the most recent goal setting proceeding, Order No. PSC-14-0696-FOF-EU (page 38), described how lost revenues can result in increased customer rates:

1		A utility's base rates are established by us in a rate case, and
2		represent the recovery of fixed costs for items such as power plants
3		and operations. Base rates are recovered based upon customer's
4		consumption of energy, which is variable. As a result, if energy
5		consumption decreases, the FEECA Utilities would have fewer units
6		of consumption over which to spread these fixed costs. Such an
7		outcome is often referenced to as lost revenues.
8		
9		In this same order and in response to the position of a SACE witness in that
10		proceeding, the Commission emphasized the potential impacts of lost revenues,
11		regardless of their origin:
12		The reduction in sales due to participation in demand-side
13		management measures would have the same effect as a sales
14		forecast that did not materialize. We note that decline in sales was
15		the primary factor in the last several electric rate cases before us. If
16		consumption is reduced enough, a utility may file a petition with us
17		for a rate increase.
18	Q.	Is this relevant to the setting of DSM goals?
19	A.	Yes. Setting goals based on the TRC test will result in a greater level of lost
20		revenues, will result in a greater likelihood of a rate case (along with the increased
21		uncertainty, increased regulatory costs, and increased workload requirements of a
22		rate case), and will result in higher bills for non-participants because of the cross-
23		subsidies between participants and non-participants. These facts cannot be

Witness: J. Terry Deason

summarily dismissed simply to promote the use of one cost-effectiveness test over
another. Contrary to the SACE witnesses' contentions, a dismissal of these
outcomes would be inconsistent with the policies used by Florida to set rates and
Florida's policies on setting DSM goals.

5

Q.

Is this relevant for customers?

6 A. Yes. Customers expect and deserve rates that are fair, equitable, and 7 nondiscriminatory. They want to know that the rates they pay are the same as the 8 rates paid by all other similarly situated customers on the system. They also do not 9 expect their rates to be higher because of the actions of others or benefits given to 10 other customers for which they do not qualify. It is this last customer expectation 11 which makes it so important that the rate impacts of participants versus non-12 participants be recognized. Rates are established in Florida with the goal of 13 protecting the general body of customers. This same standard is equally applicable 14 to both base rates and rates that are passed through to customers through the ECCR 15 clause for the IOU FEECA Utilities.

16

17

III. TWO-YEAR PAYBACK SCREENING CRITERION

18 Q. What is the purpose of the two-year payback screening criterion?

A. Its purpose is to account for free riders. A free rider is defined as a customer who
would receive an incentive from the utility for a DSM measure that he or she would
install even without the existence of the utility provided incentive. Rule 25-

17.0021(3), F.A.C., requires FEECA Utilities to address free riders as part of their
 2 goals analyses during the goal setting process.

3 Q. Has the Commission consistently used a two-year payback criterion to account 4 for free riders?

5 Yes, the two-year payback criterion was first used by the Commission in the 1993-A. 6 94 goals setting proceeding. It was adopted as a means to account for free riders, as 7 required by Rule 25-17.0021, F.A.C. It has been consistently used since the 8 Commission's decision in 1994, with a slight modification in the 2009 goal-setting 9 proceeding. In that case, the Commission used a modified two-year payback 10 criterion, in which a selected number of measures that were traditionally screened 11 out were nevertheless allowed to be recognized for goal setting. In the most recent goal-setting proceeding, the Commission again used the two-year payback criterion 12 13 to account for free riders, stating:

14	We approved goals based on a two-year payback criterion to
15	identify free riders since 1994 and we find it appropriate to continue
16	this policy. (See page 27, Order No. PSC-14-0696-FOF-EU)

17 18

The Commission went on to explain its rationale for its decision, stating:

We find that the two-year payback criterion provides sufficient
economic incentive to convince a customer to participate in a given
energy efficiency program while balancing the requirement to account
for free riders and minimizing program costs and undue subsidies. (See
pages 26-27, Order No. PSC-14-0696-FOF-EU)

2

Q. Do Witnesses Grevatt and Bradley-Wright agree with the use of the two-year payback criterion to account for free riders?

A. No. They do acknowledge that free riders exist and that the effect of free riders
should be recognized. However, they disagree with the two-year payback screening
methodology used by the FEECA Utilities and traditionally accepted by this
Commission to account for free riders.

Q. On what basis does Witness Grevatt disagree with the two-year screening criterion as applied by the FEECA Utilities?

9 His arguments fall into three broad categories. First, he incorrectly asserts that the A. 10 two-year payback screen assumes that all measures with a payback of two years or 11 less will be installed and that the FEECA Utilities present no empirical evidence to support this assumption. Second, he incorrectly asserts that it is the underlying 12 13 premise of utility sponsored efficiency programs to eliminate market barriers and 14 that the two-year payback screen prevents his premise from being achieved. And 15 third, he asserts that a screen for free riders should not be applied at the goal-setting 16 level, rather that it should only be part of program design.

Q. As to Witness Grevatt's first area of disagreement, does the two-year payback criterion assume there is a 100% penetration rate for all measures with a payback of two years or less?

A. No, it does not. To better explain this, it is necessary to understand what the twoyear payback criterion is and what it is designed to do. First, the two-year payback criterion is a tool to be used by the Commission to recognize that there are free riders and to set goals appropriately. It is not and was never intended to be a bright-line,

1 100% accurate predictor of customer actions and choices under all circumstances. 2 It does appropriately assume, for those customers who are willing to consider an 3 energy efficiency measure, that they will make decisions in their own economic 4 interest. The two-year payback criterion further assumes that years to payback is an 5 objective measure, the calculation of which can be verified, to use to differentiate 6 those customers who would make the investment without an incentive and those 7 who would need an additional incentive to make the investment. If customers who 8 would have adopted the measure without an additional incentive nevertheless 9 receive an incentive, they become free riders and impose additional and unnecessary 10 costs on the general body of customers.

11

12 The two-year payback criterion does not, nor should it, assume that 100% of all 13 customers will adopt a measure if its payback is two years or less. It does assume 14 that two years is a reasonable point of differentiation to predict where customers are 15 more likely to adopt a measure, based on the measure's own inherent economic attractiveness, without additional incentives and costs on the general body of 16 17 customers. In reality, some customers will not adopt a measure regardless of its 18 payback, while others will adopt measures with paybacks longer than two years. 19 Two years has been consistently used as a reasonable point to make that 20 differentiation.

Q. Does Witness Grevatt agree that customers make decisions on both sides of the two-year point of differentiation?

A. Yes, he recognizes this phenomenon. On page 21 of his pre-filed testimony, he

2

states: "Inevitably, most such programs will have some level of free ridership – from both measures with shorter paybacks and measures with longer paybacks."

3 Q. Why should those customers who are motivated by their own economic 4 interests be the focus of the debate?

5 A. All parties must recognize that the purpose of this proceeding is to set conservation goals and then subsequently to adopt programs that will incent customers to 6 7 implement cost-effective conservation measures to achieve those goals. Therefore, 8 it is only those customers who are willing to act in their economic interests by 9 availing themselves of the programs and incentives that should be targeted. For 10 those customers who are not motivated by economics or chose not to participate for 11 other more basic reasons, it is unlikely that offering incentives is going to change 12 their views. As such, it is only those customers who are motivated for economic 13 reasons that should be subject to the free rider screens and have goals set and 14 programs offered for them to act consistent with their economic interests. Stated 15 differently, for those customers who are not motivated by the economics of the 16 offering, no goals or incentives are likely to have an impact and have them adopt 17 conservation measures. Therefore, the two-year payback criterion does not assume 18 a 100% penetration for measures with a payback of two years or less and Witness 19 Grevatt's suggestion to the contrary demonstrates a basic misunderstanding of the 20 purpose of the screen.

1 **Q**. Witness Grevatt criticizes the FEECA Utilities use of the two-year payback 2 screen because they offer no empirical evidence that all customers will adopt 3 measures with paybacks of two years or less. Is his criticism legitimate? 4 A. No, for two basic reasons. First, as I just described, the two-year payback screen 5 does not assume that 100% of customers will adopt measures with paybacks of two years or less. Neither does it assume that 0% of customers will adopt measures with 6 7 paybacks greater than two years. Hence, it would be impossible to provide empirical 8 evidence to demonstrate results not assumed by or even envisioned by the two-year 9 payback screen. Second, the two-year payback screen has been consistently used 10 since 1994, and the Commission in its last goals-setting order rightfully 11 characterized the use of the two-year payback screen as its policy. 12 **Q**. Has Witness Grevatt provided an empirical study justifying a change in the Commission's 25-year policy? 13 14 A. No. As to Witness Grevatt's second area of disagreement, is it the underlying 15 **Q**. 16 premise of utility-sponsored efficiency programs to eliminate market barriers? 17 No. The purpose of FEECA and hence the DSM goals and programs resulting A. 18 therefrom, is to "protect the health, prosperity, and general welfare of the state and 19 its citizens." This can be found in Section 366.81, F.S. This same statutory 20 provision "declares that it is critical to utilize the most efficient and cost-effective 21 demand-side renewable energy systems and conservation systems" to fulfill 22 FEECA's purpose. Thus, the premise is to determine and implement the most efficient and cost-effective programs. Neither FEECA nor Rule 25-17.0021, F.A.C., 23

requires the elimination of market barriers per se. In fact, neither the statute nor the
 rule even uses the term "market barriers."

3 Q. Are you suggesting that the consideration of market barriers has no role in the 4 establishment of DSM goals?

5 A. No. What I am suggesting is that the elimination of market barriers is not the 6 preeminent concern as Witness Grevatt asserts. The elimination of market barriers 7 may be needed, but must be tempered with concerns of efficiency and cost-8 effectiveness.

9 **Q.**

Please explain.

10 The achievement of FEECA goals comes at a cost, a cost which is passed through A. 11 to the general body of customers through the ECCR clause for the IOU FEECA 12 Utilities and through base rates for OUC and JEA. It is in the public interest to 13 achieve goals in the most efficient manner. This results in a lesser burden on the 14 general body of customers. If costs are incurred to incentivize customers to take 15 action that they would have otherwise taken in their own economic interest, costs to 16 the general body of customers are higher than they need to be to achieve the same 17 level of conservation. It should be emphasized that the ultimate goal of the process 18 is to achieve the maximum amount of cost-effective conservation by the most 19 efficient means, whether it be through utility sponsored programs or natural market 20 forces. The goal is not to set goals higher than they should be simply for the sake 21 of having higher goals or to eliminate market barriers simply because they may exist. 22 A proper recognition of free riders is necessary to establish appropriate goals.

23

1 If goals were set and programs were implemented with the single-minded purpose 2 of simply eliminating market barriers by offering incentives where they are not 3 needed, a tipping point would eventually be reached wherein either the programs 4 become non-cost-effective (under RIM) or the cost passed onto customers becomes 5 exorbitant and not sustainable.

6 Q. In your answer you used the term natural market forces. To what do you refer 7 and how is it relevant to free riders?

8 A. I am referring to the harnessing of market forces to achieve results without the need 9 for government manipulation, interference, or subsidization. In the context of goal 10 setting and free riders, it simply recognizes that rational customers will act in their 11 own economic interest and take measures to reduce energy consumption, if it is 12 sufficiently attractive economically for them to do so. It is an example of a free 13 market economy working as it should – rational economic decisions being made in 14 one's best interest without government intervention through mandates or provision 15 of incentives. Good examples would be customers deciding to install more efficient 16 lighting. Such customers make the economic decision to invest in such measures 17 because those measures quickly benefit them economically. In that situation, energy 18 efficiency is achieved, the customer is rewarded for his or her initiative through bill 19 savings, and the general body of customers is not asked to subsidize his or her 20 decision.

Q. As to Witness Grevatt's third area of disagreement, should free riders only be considered at program design and not when setting goals?

A. No, for three reasons. First, Rule 25-17.0021(3), F.A.C., requires that free riders be

1		considered as part of the Commission's responsibility to establish goals. It is not
2		optional as Witness Grevatt suggests. Consequently, the Commission has
3		consistently considered free riders when setting goals since 1994. Second, the
4		Commission does not design programs. The design of programs is the responsibility
5		of the FEECA Utilities. While the Commission reviews and ultimately approves the
6		programs designed by the utilities, it is more of a pass/fail standard. In making its
7		pass/fail review, the Commission considers three discrete criteria. These criteria are
8		identified by the Commission in its order approving FPL's most recent DSM plan:
9		The criteria used to review the appropriateness of DSM programs
10		are: (1) whether the program advances the policy objectives of
11		FEECA and its implementing rules; (2) whether the program is
12		directly monitorable and yields measurable results; and (3) whether
13		the program is cost-effective. (See page 2, Order No. PSC-15-0331-
14		PAA-EG, Citing FPSC Order No. 22176, issued November 14,
15		1989, in Docket No. 890737-PU)
16		And third, ignoring free riders during the establishment of goals would result in
17		goals that are not the most efficient and cost-effective and could have the
18		consequence of reaching the tipping point I earlier described.
19	Q.	Given that consideration of free riders is required when setting goals by Rule
20		25-17.0021(3), F.A.C., has Witness Grevatt offered any meaningful alternative
21		to the two-year payback criterion?
22	A.	No.
23	Q.	Do any of Witness Grevatt's disagreements justify a deviation from the

1 Commission's policy?

2	A.	No. The Commission's policy is consistent with FEECA and Rule 25-17.0021,
3		F.A.C. The issue of using a two-year payback criterion has been repeatedly litigated
4		by LEAF and SACE over a number of goals-setting proceedings. Their arguments
5		have been consistently rejected by the Commission, and the Commission has
6		steadfastly adhered to its policy. There is nothing presented by Witnesses Grevatt
7		and Bradley-Wright that would justify a departure from the Commission's long-held
8		policy on free riders and using a two-year payback criterion.
9		
10		IV. SACE'S PROPOSED DSM GOALS
11	Q.	What DSM goal does Witness Grevatt recommend to the Commission?
12	A.	He recommends a goal based on annual energy sales. His specific recommendation
13		is a goal of 0.3% of energy sales ramped up incrementally over five years for a final
14		goal of 1.5% of sales starting in 2024 and then continuing at that level for the
15		remainder of the ten-year period.
16	Q.	On what basis does Witness Grevatt make his recommended goal?
17	A.	He bases his recommendation on savings achieved by Duke Energy Carolinas and
18		Entergy Arkansas, which he averaged to around 1.5% per year. He states that this
19		is the basis for his recommendation because "it is not possible to make all the needed
20		corrections to the utilities' analyses in this proceeding" (Page 42 of Grevatt's pre-
21		filed testimony)
22	Q.	Does he recommend any peak demand goals?
23	A.	No. He states that he cannot recommend specific peak demand savings targets

1		because he arrived at his energy savings targets from a "top down" perspective. He
2		does make some extrapolations based on the ratio of TRC economic potential for
3		summer and winter peak savings to TRC economic potential for energy savings and
4		then applies this ratio to his 1.5% of sales goal. He then states: "I would suggest
5		additional analysis be undertaken to determine whether these ratios would hold"
6		(pages 43 and 44 of Grevatt's prefiled testimony) By failing to make a
7		recommendation for peak demand savings, his recommendation is not compliant
8		with the requirements of FEECA and Rule 25-17.001, F.A.C.
9	Q.	Is Witness Grevatt's recommendation to set goals as a percent of sales from
10		other states appropriate?
11	A.	No. His energy savings goal is not consistent with the requirements of FEECA and
12		Commission rules. Mr. Grevatt spends much time and dozens of pages trying to
13		identify perceived deficiencies in the FEECA Utilities' proposed goals under the
14		approaches required by FEECA and Rule 25-17.001, F.A.C., only to then offer a
15		proposal that is completely disconnected from any of the FEECA requirements.
16	Q.	How would Witness Grevatt's recommended goal be inconsistent with FEECA
17		and Commission rules?
18	A.	Both FEECA and Commission rules require goals to be based on Florida-specific
19		data and analyses. Witness Grevatt's goal is not Florida-specific; in fact, he
20		specifically relies on other states for his recommendations. Other inconsistencies
21		are that Witness Grevatt's goal does not:
22		• Rely on a cost-effectiveness test.

• Address system reliability.

1		• Place demand-side and supply-side resources on a level playing
2		field.
3		• Keep rates low and minimize cross-subsidies.
4		• Address free riders.
5	Q.	Is it appropriate to base Florida's DSM goals on those in other states?
6	A.	No. Witness Grevatt has essentially concluded because other "leading" states are
7		doing certain things that Florida should do the same. He makes overly generalized
8		assumptions and ignores substantive differences that may exist between what is
9		required in Florida (in statute and rule) and what may or may not be required in other
10		states. By totally dismissing Florida's approach and relying on other states, he
11		shows little regard for the long-standing policy basis of setting DSM goals in
12		Florida.
13	Q.	Why is it important to consider potential differences in statutory framework
14		before making inferences about the appropriateness of conservation goals?
15	A.	Each state must follow its specific statutory framework. To automatically infer that
16		the goals established in another state under a different statutory framework are
17		what's best for Florida, is at best flawed and at worst a potentially ill-advised way
18		to circumvent Florida's statutes and rules.
19	Q.	Witness Grevatt points to Entergy Arkansas as a "leading" state, on which he
20		bases his recommended 1.5% goal. Have you reviewed the Rules for

2

Conservation and Energy Efficiency Programs adopted by the Arkansas Public Service Commission?

A. Yes, I reviewed the version last revised on January 19, 2018. I believe this to be the
latest version.

5 Q. Did your review reveal anything of note relative to the issues raised by Witness 6 Grevatt?

- 7 A. Yes. First, I do not profess to be an expert in how Arkansas has implemented its 8 Implementation of its rules is within the discretion of the Arkansas rules. 9 Commission, just as the implementation of Rule 25-17.0021, F.A.C., is within the 10 discretion of the Florida Commission. However, it appears to me that the Arkansas 11 Public Service Commission has adopted its rules consistent with the enabling 12 legislation (Ark. Code Ann. §§ 23-3-405) and that the rules reflect an earnest desire 13 to approve programs and measures that "will be beneficial to the ratepayers of such 14 public utilities and to the utilities themselves." This is an example of how each state 15 has its own unique enabling legislation and can adopt rules which it feels best meets 16 the needs of that state. Certainly this is what Florida has done. However, what may 17 be appropriate in one state may not be appropriate in another state. This is a 18 fundamental problem with Witness Grevatt's recommendation to impose 19 approaches in other states as appropriate for Florida.
- 20

I do note three aspects of the Arkansas Rules that pertain to the issues raised by Witness Grevatt. First, the rules do not require the use of the TRC test, even though I do understand that the TRC test has been used in Arkansas. The rules identify a

1 number of tests, including RIM, and then specify that "the costs and benefits 2 contained in the Manual are suggestions and are not endorsed by the Commission 3 for every program." Second, there is a provision in Section 2 E. Customer Incentives 4 that requires all customer incentives to be considered in the benefit/cost testing of 5 programs. I interpret this provision to perhaps require considerations beyond the traditional TRC test, as recommended by Witness Grevatt. As I previously 6 7 discussed, the traditional TRC test does not consider customer incentives. And third, 8 there is a provision in Section 7: Cost Recovery that allows "lost contributions to 9 fixed costs" to be recovered contemporaneously through a surcharge or rider. This 10 recognizes that approved programs that do not pass the RIM test will result in lost 11 revenues and lost contributions to cover fixed costs. In an apparent attempt to 12 minimize regulatory lag and the need for more frequent rate cases, the Arkansas 13 Commission recognizes the need to allow prompt recovery of these lost 14 contributions to fixed costs through a surcharge or rider. Of course, in Florida, such 15 a provision is unnecessary because Florida primarily relies on the RIM test which 16 accounts for lost contributions to fixed costs.

Q. If Florida were to adopt Witness Grevatt's recommended 1.5% of sales goal, would there be a need for a similar provision to allow for the contemporaneous recovery of lost contributions to fixed costs?

A. Adopting goals that cause such a large reduction in sales would certainly result in lost base rate revenues and the need for more frequent base rate cases and larger requested increases within those rate cases. And regulatory lag would result during the time period that the lost revenues are experienced and before new base rates

Page 33

1 could be implemented following a rate case. This would be true for both OUC and 2 JEA, as well as the IOU FEECA Utilities. If the Commission were inclined to adopt 3 goals of the magnitude recommended by Witness Grevatt and wanted to avoid 4 regulatory lag and more frequent rate cases, some type of cost recovery mechanism 5 would be needed. However, my recommendation is for the Commission to reject 6 Witness Grevatt's recommendations and to adhere to its longstanding and consistent 7 policy of setting DSM goals primarily based on the RIM test. This would obviate 8 the need for a cost recovery mechanism as envisioned by the Arkansas Rules. 9 Q. Has the Commission previously considered a blanket percentage of sales 10 proposal as a basis to set DSM goals, as Witness Grevatt is proposing? 11 A. Yes. In the 2014 goals proceeding, witnesses for both SACE and the Sierra Club 12 proposed blanket goals expressed as a percentages of utility retail sales. Witness 13 Mims on behalf of SACE recommended a goal of 0.75% of retail sales increasing to 14 1.0%. Witness Woolf on behalf of the Sierra Club recommended a goal of 1.0% of 15 retail sales by 2019. While their recommended goals were much lower than those 16 proposed by Witness Grevatt, they took the same basic approach and their

17 recommended goals were based on goals in other "leading" states.

23

18 Q. What did the Commission decide relative to their recommended goals?

A. The Commission resoundingly rejected their recommended goals and approach. In
doing so, the Commission found that their recommended goals were not based on
any cost-effectiveness test and were not compliant with Rule 25-17.0021 (1), F.A.C.
In its Order No. PSC-14-0696-FOF-EU (page 36), the Commission stated: "We find

proffered by either SACE or the Sierra Club." The same lack of competent or
 substantial evidence is similarly a fatal flaw in the recommendations of SACE
 Witnesses Grevatt and Bradley-Wright in these proceedings.

4 Q. Was the Commission also concerned that their recommended goals could result 5 in increases to base rates?

A. Yes. In its Order No. PSC-14-0696-FOF-EU (pages 38 and 39), the Commission
acknowledged the potential for lost revenues and explained how lost revenues could
cause base rates to increase. The Commission concluded: "While no formal analysis
was conducted, given the 20 to 40 times higher energy savings associated with Sierra
Club and SACE's proposed goals, it is reasonable to conclude that an increase in
base rates would be likely if these intervenors' goals were adopted."

12 Q. As a matter of good public policy, do you agree with the Commission's rationale 13 as reflected in its 2014 order?

14 A. Yes, I agree with the Commission's rationale. The simplistic percentage goals 15 advocated by SACE's witnesses in this case are similar to those advocated by SACE 16 and the Sierra Club in 2014, and they suffer from the same critical problem: their 17 recommended aggressive percentage goals would cause other customers' rates to 18 increase and to be greater than they would otherwise be. Their recommendations 19 are not based on the appropriate public policy that regulatory authorities, like the 20 Florida Commission, should avoid cross-subsidization where possible; in fact, their 21 recommendations completely ignore this policy.

Q. Do you believe that there likely would be the need to increase base rates were the Commission to adopt Witness Grevatt's recommended goal of 1.5% of

1 sales?

9	Q.	Are you familiar with the testimonies of Witnesses Mims and Woolf that were
8		higher requested rate increases than otherwise.
7		recommended goal would cause rate cases to be filed sooner than otherwise and with
6		increase or decrease over time. Without question, adopting Witness Grevatt's
5		what degree, given that utilities experience other factors that cause earnings to
4		sales would also increase base rates. The only issue would be at what time and by
3		1% of sales, it would be reasonable to conclude that a 50% higher goal of 1.5% of
2	A.	Yes. Given that it was anticipated that base rates would increase with goals of only

- 10 **filed and presented in the last goals proceeding?**
- A. Yes, I filed rebuttal testimony to both witnesses in that proceeding and attended the
 hearing.
- Q. Based on your knowledge, is there anything in the testimony of Witness Grevatt
 that addresses the shortcomings of Witnesses Mims and Woolf or otherwise
 should convince the Commission that a blanket percentage of sales goal should
 be adopted?
- A. No. Like the testimonies and positions advocated by SACE and the Sierra Club in
 the 2014 FEECA Goals proceedings, neither Witness Grevatt nor Witness BradleyWright has provided any competent or substantial evidence to support their proposed
 percentage goals, and the Commission should reject them, just as the Commission
 rejected similar, and similarly unsupported, proposals in 2014.
- Q. Do your opinions regarding the SACE witnesses' proposals that DSM goals be
 set based on overall percentage reductions also apply to their recommendations

2

regarding goals for energy conservation programs aimed at low-income customers?

- A. Yes. The SACE witnesses' position and recommendations suffer from the same
 shortcomings. The Commission should reject their recommendations on this point,
 just as the Commission has consistently rejected such recommendations in the past.
- Q. Aside from the overall shortcomings you have identified, is there any part of
 Witness Bradley-Wright's recommendations that you find particularly
 inconsistent with FEECA and Commission policy?
- 9 Yes. Witness Bradley-Wright recommends "larger scale" improvements be directed A. 10 at low-income customers. As examples of "larger scale" improvements, he 11 recommends programs to replace heating, ventilation, and air conditioning (HVAC) equipment, water heaters, and other appliance upgrades. I would assume that other 12 13 appliances could include such things as refrigerators, freezers, stoves, and dish 14 washers, even though his testimony is not that specific. Presumably, these large-15 scale improvements would be made cost-free to qualifying customers, as opposed to a cost-sharing or rebate approach, which is traditionally used in DSM programs for 16 17 such expensive measures.

Q. Does Witness Bradley-Wright attempt to demonstrate that such large-scale measures would be cost effective or would contribute to reaching goals based on achievable potential?

A. No. He applies no cost-effectiveness test to make such a determination. It is also
 unclear whether his eligible appliances would exceed what is already required by
 codes and standards or whether the program is designed to simply replace older

appliances with newer ones. In either event, his recommendation would not be
beneficial to the general body of customers. Neither does his recommendation
consider the significant cross-subsidies that would result. His recommendation
would cause a large increase in the cost of DSM programs that must be paid by all
customers, including low-income customers, through the ECCR portion of their bills
for the IOU FEECA Utilities and through base rates for OUC and JEA.

Q. Would his recommendation cause a large increase in the amount charged to customers through the ECCR portion of their bills.

9 Given the vagueness and lack of specifics in Witness Bradley-Wright's A. Yes. 10 testimony, it would be difficult to calculate an exact amount. However, without 11 question, it would cause the ECCR portion of customer bills to materially increase from amounts traditionally approved by the Commission. And for OUC and JEA, 12 13 there would be similar increases, though not through the ECCR. I fear that the 14 magnitude of the increases might cause the tipping point to be reached wherein the 15 costs and programs would not be sustainable.

16 **Q.**

Do you have any other concerns?

A. Yes. Invariably such unproven and untested programs of this magnitude would
present challenges in their precise structure and administration. I also fear there
might be dissatisfied customers who would feel they are deserving of free appliances,
but who do not qualify.

- 21 Q. On what basis does Witness Bradley-Wright make his recommendation?
- A. His recommendation is made, as he states in his testimony on page 28, "to capture
 deep savings for each participant, sufficient to reduce electric bills enough to

1		materially improve the financial standing of the low-income customers served every
2		month for many years to follow."
3	Q.	Is this an appropriate basis upon which to set goals and approve DSM
4		programs?
5	A.	No. Neither FEECA nor Commission Rules declare that improving the financial
6		standing of individual customers is a basis to set goals and approve DSM measures.
7		Rather, as I explained earlier, FEECA and Commission Rules require that goals and
8		programs be cost-effective and beneficial to the general body of customers. Witness
9		Bradley-Wright's recommendation does not meet these standards and should be
10		rejected.
11		
12		V. CONCLUSION
13	Q.	What is your conclusion?
14	A.	The goal proposed by Witness Grevatt is a blanket goal based on inappropriate
15		inferences from other states. Furthermore, his goal, as well as those suggested by
16		Witness Bradley-Wright, do not meet the requirements of FEECA and Commission
17		rules and are contrary to the good, sound public policy developed by the
18		Commission over the past three decades. The SACE witnesses' goals should be
19		rejected. Instead, goals should be set based on the use of the RIM test, which will
20		demonstrably benefit all utility customers - the general body of customers or
21		ratepayers - and minimize cross-subsidies. The Commission should also continue
22		to use the two-year payback criterion to account for free riders in the goal-setting

1	Q.	Does this conclude your testimony?
2	A.	Yes, it does.
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		

Terry Deason*



Special Consultant (Non-Lawyer)*Phone:(850) 425-6654Fax:(850) 425-6694E-Mail:tdeason@radeylaw.com

Practice Areas:

• Energy, Telecommunications, Water and Wastewater and Public Utilities

Education:

- United States Military Academy at West Point, 1972
- Florida State University, B.S., 1975, Accounting, summa cum laude
- Florida State University, Master of Accounting, 1989

Professional Experiences:

- Radey Thomas Yon & Clark, P.A., Special Consultant, 2007 Present
- Florida Public Service Commission, Commissioner, 1991 2007
- Florida Public Service Commission, Chairman, 1993 1995, 2000 2001
- Office of the Public Counsel, Chief Regulatory Analyst, 1987 1991
- Florida Public Service Commission, Executive Assistant to the Commissioner, 1981 – 1987
- Office of the Public Counsel, Legislative Analyst II and III, 1979 1981
- Ben Johnson Associates, Inc., Research Analyst, 1978 1979
- Office of the Public Counsel, Legislative Analyst I, 1977 1978
- Quincy State Bank Trust Department, Staff Accountant and Trust Assistant, 1976 - 1977

Professional Associations and Memberships:

- National Association of Regulatory Utility Commissioners (NARUC), 1993 1998, Member, Executive Committee
- National Association of Regulatory Utility Commissioners (NARUC), 1999 2006, Board of Directors



Terry Deason*

- National Association of Regulatory Utility Commissioners (NARUC), 2005-2006, Member, Committee on Electricity
- National Association of Regulatory Utility Commissioners (NARUC), 2004 2005, Member, Committee on Telecommunications
- National Association of Regulatory Utility Commissioners (NARUC), 1991 2004, Member, Committee on Finance and Technology
- National Association of Regulatory Utility Commissioners (NARUC), 1995 1998, Member, Committee on Utility Association Oversight
- National Association of Regulatory Utility Commissioners (NARUC) 2002 Member, Rights-of-Way Study
- Nuclear Waste Strategy Coalition, 2000 2006, Board Member
- Federal Energy Regulatory Commission (FERC) South Joint Board on Security Constrained Economic Dispatch, 2005 – 2006, *Member*
- Southeastern Association of Regulatory Utility Commissioners, 1991 2006, Member
- Florida Energy 20/20 Study Commission, 2000 2001, Member
- FCC Federal/State Joint Conference on Accounting, 2003 2005, Member
- Joint NARUC/Department of Energy Study Commission on Tax and Rate Treatment of Renewable Energy Projects, 1993, *Member*
- Bonbright Utilities Center at the University of Georgia, 2001, Bonbright Distinguished Service
 Award Recipient
- Eastern NARUC Utility Rate School Faculty Member



1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		IN RE: COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS
3		
4		DOCKET NO. 20190015-EG (Florida Power & Light Company)
5		DOCKET NO. 20190016-EG (Gulf Power Company)
6		DOCKET NO. 20190018-EG (Duke Energy Florida, LLC)
7		DOCKET NO. 20190019-EG (Orlando Utilities Commission)
8		DOCKET NO. 20190020-EG (JEA)
9		DOCKET NO. 20190021-EG (Tampa Electric Company)
10		
11		REBUTTAL TESTIMONY OF JIM HERNDON
12		
13	Q.	Please state your name, position of employment, and business address.
14	A.	My name is Jim Herndon. I am Vice President in the Strategy and Planning Practice
15		within the Utility Services business unit of Nexant, Inc. (Nexant). My business
16		address is 1255 Crescent Green Drive, Suite 455, Cary, North Carolina 27518.
17		
18	Q.	Did you previously submit direct testimony in this proceeding?
19	A.	Yes, I did.
20		
21	Q.	What is the purpose of your rebuttal testimony?
22	A.	The purpose of my rebuttal testimony is to respond to the testimonies of Witnesses
23		Grevatt and Bradley-Wright filed on behalf of the Southern Alliance for Clean Energy

1 (SACE). Specifically, I respond to their incorrect assertions that consideration of 2 naturally-occurring efficiency accounts for free ridership and that the Achievable Potential (AP) is understated because the effect of early retirement of measures is not 3 taken into account. I also respond to Witness Grevatt's criticism regarding inclusion 4 5 of non-electric impacts in the Total Resource Cost (TRC) test, his estimates of the 6 economic potential (EP) for Duke Energy Florida (DEF), Orlando Utilities Commission (OUC), and JEA without the two-year payback screen, and items on his 7 list of so-called "potential study conservatisms." Please note that for the particular 8 9 SACE witness contentions I am addressing, Witness Bradley-Wright re-states many 10 of the same statements made by Witness Grevatt. Therefore in many cases I will 11 simply refer to the assertions of Witness Grevatt in my rebuttal testimony; however, 12 this should not be construed as acceptance or acquiescence of the same or similar 13 positions and statements made by Witness Bradley-Wright.

14

15 Naturally Occurring Efficiency/Free Ridership

Q. Do you agree with Witnesses Grevatt's and Bradley-Wright's assertions that the
 potential effects of free riders were already excluded from estimates of the AP
 because naturally-occurring efficiency was excluded from the technical potential
 (TP)?

A. No. SACE's witnesses incorrectly assert that free ridership effects were double
 counted in Nexant's estimates of Achievable Potential (AP) because we included
 consideration of naturally-occurring efficiency in developing our estimates of TP.
 (Grevatt testimony, pages 20, 39; Bradley-Wright testimony, page 16.) This assertion

PAGE 2 WITNESS: JIM HERNDON

1 incorrectly combines two discrete and separate components of the Market Potential 2 Study (MPS) that address different issues and are applied in different ways to the 3 Demand Side Management (DSM) measures included in the study. The study's consideration of naturally-occurring efficiency in each utility's forecast calibrates 4 5 measure parameters, such as baseline efficiency and current saturation, to align with 6 forecasted energy trends that include historic customer behavior and past DSM 7 program performance, but does not address the likelihood of *future* free ridership if 8 the measure is included in a utility-sponsored DSM program. Therefore, an additional 9 analysis step was necessary to account for free riders, as required by Commission Rule 10 25-17.0021(3), F.A.C.

11 The consideration of naturally-occurring efficiency included in the utility's 12 base load forecast is a necessary step to ensure that the identified TP addresses the 13 future potential for energy efficiency and not energy efficiency already included in the 14 utility forecast. Accounting for naturally-occurring efficiency reflects existing market 15 trends for energy consumption, independent of utility-sponsored DSM programs. Naturally-occurring potential is an inherent characteristic of baseline energy 16 17 consumption trends, and must be included to accurately quantify energy savings 18 potential that may be achieved through utility-sponsored programs.

As stated in Section 5.1.1 of Nexant's MPS Reports for each utility subject to the Florida Energy Efficiency and Conservation Act (FEECA Utilities), this naturallyoccurring efficiency included two known sources: (a) the impacts of the Florida Building Code and of federal equipment standards, including appliance efficiency standards (collectively, Code and Standards) and (b) baseline measure adoption of

PAGE 3 WITNESS: JIM HERNDON

1 already implemented Energy Efficiency (EE) technologies and measures. To align 2 with the utility forecast, adjustments were made to individual measure assumptions, 3 including the baseline efficiency level and applicability factors that account for current saturation of the measure in the utility's service territory. For example, the utility 4 5 residential load forecast may assume that some customers have installed heat pump 6 water heaters on their own, which would be considered naturally-occurring efficiency. 7 Nexant aligned our saturation assumptions for this measure with the utility forecast 8 assumptions so that TP was only applied to customers that have not installed a heat 9 pump water heater. However, aligning with utility forecast assumptions does not 10 address the likelihood of future free ridership for those remaining customers in a 11 utility-sponsored DSM program (i.e., in this example, those customers that have yet to 12 install a heat pump water heater).

In order to address the issue of free riders (customers who might take 13 14 advantage of a utility incentive payment for a DSM measure that they would have 15 implemented without the incentive), the study included the additional analysis step 16 of the two-year payback screen, consistent with prior FEECA proceedings. This two-17 year screen, which eliminated measures from the EP that had a simple payback of 18 less than two years, is intended to minimize the impacts of free ridership in the utility 19 goal-setting process in order to ensure that utility resources are utilized to support 20 DSM measures that produce energy and demand savings that are not likely to be 21 achieved without the utility-sponsored program.

22 While both components address DSM measures in the study, the naturally-23 occurring efficiency component is applied within individual measure parameters to calibrate the baseline and applicability factors to the current utility forecast, while the
 free ridership component is applied to determine which measures should be
 eliminated from consideration in setting DSM goals due to higher likelihood of future
 free ridership.

5

Q. Do you agree with Witness Grevatt's assertion that because Nexant excluded
naturally-occurring efficiency from its assessment of TP, the application of the
two-year payback screen at the EP stage means that the AP was "double
adjusted" for potential free riders?

10 No. As stated above, the alignment with the utility load forecast ensured that the A. 11 measures in the study used baselines consistent with current assumptions in the utility 12 load forecast and historic customer behavior. This alignment step adjusted baseline efficiency levels and applicability factors within measures, including the effects of 13 14 measures already implemented by customers and thus reflected in the utility's load 15 forecast, but did not consider future free ridership. The two-year payback screen was 16 needed to account for free riders, as required by the Commission Rule 25-17.0021(3), 17 F.A.C., and was applied during the economic screening process. There is no double 18 counting, as asserted by SACE's Witnesses Grevatt and Bradley-Wright.

19

20 Q. Does Witness Grevatt assert that there should be no adjustment for free-riders if 21 the TP excludes naturally-occurring efficiencies?

WITNESS: JIM HERNDON

1	A.	No. In fact, on page 21, lines 6-15, Witness Grevatt acknowledges that it is appropriate
2		to address free ridership "both in setting savings goals and in the design and
3		implementation of programs."

- 4
- 5
- 6

Q. Is Nexant's treatment of naturally-occurring efficiencies consistent with other MPSs Nexant has done?

A. Yes. In all MPSs we conduct, Nexant is very deliberate about aligning our study
assumptions, including measure savings and applicability factors, with utility load
forecasts and current equipment saturation data. This alignment is done so that the
identified market potential provides relevant information on potential efficiency
savings that are in addition to savings already reflected and included in the utility's
base load forecast.

13

14 Q. Is Nexant's treatment of naturally-occurring efficiencies consistent with industry 15 practice regarding estimating TP?

A. Yes, it is the practice in the industry to ensure that the estimation of TP clearly
identifies how naturally-occurring efficiency is considered and whether it is
incorporated into the TP or addressed elsewhere.

Interestingly, Witness Grevatt references a 2015 Arkansas Efficiency Potential
 Study by Navigant, Inc. at page 41 of his testimony. This Arkansas study addressed
 including naturally-occurring efficiency in the utility forecast of future energy sales,
 and stated that the resulting efficiency potential did not address free ridership. For the

1 savings potential estimated in that study, the final report¹ states on page 13 that "All 2 savings reported in the Potential Study are gross, rather than net, meaning that the effect of possible free ridership is not included in the reported savings". Further in 3 the same paragraph, the report states "We note that Navigant requested the utilities to 4 5 provide forecasts of future sales which did not include anticipated reductions from 6 demand-side management (DSM) programs; however, we expect that naturally occurring conservation or change in energy intensity are included in those forecasts" 7 8 (emphasis supplied). This description indicates that for the Arkansas study, 9 Navigant's approach was similar to Nexant's MPS for the FEECA Utilities, relying on 10 utility forecast data that included naturally-occurring efficiency but not the effects of 11 not-yet-implemented utility DSM program measures, such that the use of this forecast 12 data did not incorporate consideration of free ridership in the results.

13

14 Q. Is the TP methodology used by Nexant for FEECA Utilities consistent with other 15 Nexant TP studies?

16 Yes. While each potential study is specific to the characteristics of the service territory A. including 17 being analyzed, customer composition, climate, past DSM 18 accomplishments, applicable DSM measures, regulatory and legislative requirements, 19 and other factors, the TP estimates for the FEECA Utilities followed the same 20 methodology that Nexant has used in other studies.

21

¹ Navigant Consulting, Inc., Arkansas Energy Efficiency Potential Study, Final Report, prepared for the Arkansas Public Service Commission, June 1, 2015.

Early Retirement of Existing Equipment

- Q. Witness Grevatt asserts that Nexant's AP inappropriately excludes early
 retirement of measures. Please explain what is meant by early retirement.
- A. Early retirement, in the context of DSM measures, is the replacement of existing
 electricity-consuming equipment that is still functioning prior to the end of that
 equipment's useful life.
- 7

8 Q. Does the concept of early retirement affect all efficiency measures?

9 A. No. Early retirement only applies to a subset of measures when estimating AP. These 10 measures are referred to in the MPS as "equipment" measures, which include direct 11 replacement for existing equipment, such as heat pump replacements or water heater 12 replacements. "Non-equipment" measures are the other category of measures, which 13 are not direct replacements for existing electricity-consuming equipment, but affect 14 the performance of specific types of equipment. Examples of non-equipment 15 measures include building envelope improvements (such as insulation) that impact 16 HVAC equipment or controls that impact lighting equipment. Early retirement is not 17 applicable to non-equipment measures.

18

19 Q. How did Nexant address this "early retirement" issue?

A. Nexant did not include the early retirement of existing equipment in the market potential study as the inclusion of early retirement does not impact the long-term AP and introduces increased uncertainty and subjectivity into the study. Rather, Nexant's approach to identifying market potential focuses on the natural turnover cycle of equipment. This turnover cycle assumes an even distribution of equipment
 replacement over the equipment useful life (EUL). For example, for a measure with a
 10-year measure life, 10% of the stock is assumed to be replaced each year.

4

5

Q. Is Nexant's treatment of early retirement appropriate?

6 A. Yes. For a long-term market potential study, such as this study that analyzes the 7 market potential over a 10-year period, the application of an even distribution of equipment turnover results in a population of equipment eligible for the installation of 8 9 DSM equipment measures each year of the study. While early equipment retirement 10 may be allowed or encouraged in specific utility DSM program designs, for the 11 purposes of identifying and calculating the market potential, it is reasonable to assume 12 a consistent turnover rate each year for the application of market adoption curves (i.e., that customers will replace older equipment at the end of its useful life). 13

The introduction of an additional population of "early retirement" customers would primarily create a shift between years (*i.e.*, if a customer would have been in the natural replacement population in Year 2 but was included in an assumed early retirement population in Year 1, that customer would shift from Year 2 to Year 1), but the long-term 10-year potential would remain essentially the same because that customer would have been included in the study in either case.

While there could hypothetically be a slight increase in savings in the shortterm for some early retirement measures where the existing equipment is less efficient than required by current Code and Standards, once the existing equipment is assumed

to reach the end of its measure life, the savings from that point forward are the same as measures that are based on natural turnover.

In addition, while the introduction of early retirement measures has minimal 3 impact on the long-term cumulative AP, it creates additional uncertainty and 4 5 subjectivity in the study in several ways. First, an assumption must be made as to the 6 average remaining life of the early retirement measure. As Witness Grevatt points 7 out, the Arkansas Technical Reference Manual (TRM) "allows for early replacement of certain measures" and includes specific algorithms for determining the savings and 8 9 remaining useful life. However, as described in Volume 2, Section 1.8.1 of the TRM, 10 the calculation of remaining useful life in this TRM is based on the specific age of 11 existing equipment being analyzed, indicating that the application of early retirement 12 savings is intended for program delivery and evaluation of specific participating 13 equipment, not to broadly estimate the average remaining EUL applicable across an 14 entire service territory.

15 Second, an assumption must be made as to the average efficiency level of the 16 existing equipment stock. With natural turnover (replacement at the end of EUL), 17 the baseline is a straightforward, easily quantified value that aligns with current Code 18 and Standards. However, for early retirement, an estimate of how far the typical 19 existing equipment is below code must be determined, which, similar to the remaining 20 EUL, is challenging to broadly estimate as an average across an entire service 21 territory. Without accurate data on either the typical remaining useful life or the 22 existing equipment efficiency value, the short-term savings cannot accurately be 23 estimated.

Q. What effect would application of Witness Grevatt's early retirement recommendation have on the AP for the FEECA Utilities?

3 A. The effect of adding early retirement as a separate class of customers in the study 4 would be negligible on the AP estimates for each of the FEECA Utilities, with 5 increased complexity and uncertainty to the results. Hypothetically, there might be a 6 slight change in the short-term potential for some equipment measures based on the assumed number of years of remaining life of the baseline equipment, in those cases 7 8 where the baseline equipment is assumed to be at some level below current applicable 9 Codes and Standards, but as I mentioned above, this would not materially impact the 10 long-term potential identified in the study.

11 In addition, it should also be noted that while early retirement only applies to 12 the subset of measures that are direct equipment replacements, not all measures within this subset would be included in the AP because early retirement measures are 13 14 frequently not cost-effective, as Witness Grevatt acknowledges on page 26 of his 15 testimony. Because early retirement assumes that the existing equipment is functional 16 and would continue to operate, the incremental cost of the DSM measure is the full 17 equipment and labor cost to install the measure, rather than the incremental material 18 cost relative to the cost of the baseline equipment. Therefore, in my opinion, there 19 likely would be very few, if any, equipment measures that would be cost-effective to 20 implement as early retirement measures.

21

Q. Is Nexant's treatment of early retirements consistent with other studies Nexant
has done?

1	A.	Yes. For estimating long-term market potential, Nexant typically analyzes equipment
2		measures based on natural turnover of existing equipment.
3		
4		Other Study Criticisms
5	Q.	For the FEECA Utilities for whom Nexant conducted the AP Study, how did
6		Nexant estimate the potential when the most efficient measure for an end use was
7		shown to be not cost effective, but a lower level efficiency measure was shown to
8		be cost effective (Grevatt testimony, page 28, line 16 to page 29, line 17)?
9	A.	Nexant initially ran our proprietary Technical, Economic, and Achievable Potential
10		(TEA-POT) models to estimate the TP including all measures considered in the study.
11		For both EP and AP, the TEA-POT models were re-run, and in each case only eligible
12		measures that passed the cost-effectiveness screening were included. Thus, if the most
13		efficient appliance measure was not cost-effective, it was excluded, but the effects of
14		the next most-efficient appliance of the same type would be included if it was cost-
15		effective. Therefore, SACE's criticism of EP and AP estimates for end-uses with
16		multiple competing measures is not applicable to the analysis performed by Nexant.
17		
18	Q.	Do you agree with Witness Grevatt's assertion that for some measures the non-
19		incentive cost assumptions were unreasonably high (Grevatt testimony, page 32,
20		lines 9-14)?
21	A.	No. In each instance where Nexant analyzed EP and AP, and developed non-incentive
22		cost assumptions for utilities, the cost assumptions were based on actual program

PAGE 12 WITNESS: JIM HERNDON

2

performance data from the FEECA Utilities and other regional and national utilities, which provided a reasonable proxy for utility-sponsored DSM program costs.

3

Q. On pages 34, lines 6 through 12 of his testimony, Witness Grevatt claims the
efficiency level assumed in the studies for heat pump water heaters is one of
several "problematic assumptions" underlying Nexant's analyses. Is the
efficiency level of heat pump water heaters assumed by Nexant appropriate for
this study?

9 A. Yes. As Witness Grevatt notes, the Energy Factor (EF) assumed in the study was 2.5. 10 Typically measure efficiency levels are estimated based on industry-accepted 11 efficiency criteria, such as ENERGY STAR equipment specifications. In this case, 12 the assumed average EF used in the study actually exceeds the current ENERGY STAR EF specification of 2.0 for water heaters 55 gallons or less and 2.2 for water 13 14 heaters larger than 55 gallons. Therefore, rather than understating the savings per unit 15 as suggested by SACE, the study actually assumed higher savings than could be 16 achieved by an efficient unit simply meeting the ENERGY STAR EF specification in 17 recognition that there is available equipment in the market that exceeds the ENERGY 18 STAR qualification criteria, and this assumed efficiency level is an appropriate 19 estimate for this measure.

- 20
- Q. Did Nexant assume a 20-year cap on measure lives as Witness Grevatt asserts on
 page 34, lines 20 through 25?

A. No, Witness Grevatt's assertion is incorrect. There was no measure life cap applied
 for this study. Each measure's equipment useful life was independently researched
 and referenced.

4

Q. Witness Grevatt asserts the calculations performed for the TRC test are flawed
because of a failure to include all participant benefits, specifically benefits
relating to other fuel savings, water savings, and non-energy benefits (page 35,
lines 8-22). Have you included these participant benefits in your analysis?

9 A. No. Because this analysis is being conducted to determine electric impacts and relates
10 to electric utility goal setting, the TRC analysis only included electric system benefits.
11 From discussions with the FEECA Utilities, it is Nexant's understanding that this is
12 consistent with prior studies that were utilized in prior FEECA goal setting
13 proceedings. With regard to non-energy benefits, these benefits are not typically
14 included in the TRC test.

15

Q. On page 39, line 8 to page 40, line 23, Witness Grevatt provides estimates of the
 economic potential for DEF, OUC and JEA without a two-year payback screen.
 Are the estimates provided reasonable?

A. No, the estimates made by Witness Grevatt are an extremely simplistic ratio related to
 Gulf Power's results, which ignores numerous critical factors such as differences in
 customer composition for each utility, differences in measure impacts by service
 territory, and most importantly, differences in utility avoided costs which include
 avoided energy, avoided generation, and avoided transmission and distribution, which

can vary widely by utility. Developing the estimated EP in Nexant's MPS took months
 of analysis of individual measures and utility forecast data, and the application of
 utility-specific economics to develop an accurate estimate of EP. Developing an EP
 by using a simple percentage increase based on a rounded comparison value from
 another utility ignores differences between the utilities and is analytically unsound.

6

7

Summary

8 Q. Have the SACE witnesses demonstrated that any of Nexant's data inputs, 9 assumptions, methods, or models are flawed?

A. No. The issues raised by the SACE witnesses are either based on incorrect
 understanding or incorrect interpretations of individual components of the FEECA
 Utilities' MPSs, or relate to study parameters that were applied consistent with FEECA
 requirements. Nexant conducted comprehensive, accurate MPSs that reflect relevant
 market conditions and adhere to the regulatory environment applicable for each
 FEECA Utility.

16

Q. Are the APs estimated by Nexant appropriate for setting Energy Efficiency Goals for DEF, JEA, OUC, Gulf, and FPUC?

A. Yes, the APs estimated by Nexant are based on current market conditions, sound and
 documented assumptions, the best available cost and load information from these
 utilities, well-established and approved analytical techniques, and the regulatory
 structure and policies applicable for each FEECA Utility.

23

1	Q.	Does this conclude your testimony?
2	A.	Yes.
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		