Crystal Card

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Sent:	Tuesday, October 08, 2013 1:40 PM
To:	Filings@psc.state.fl.us
Cc:	Kelley Corbari; Shevie Brown
Subject:	Docket No. 130167
Attachments:	AGDF Partial Responses to First Data Request (Rd. 2).PDF

Attached for electronic filing, please find the Partial Responses of the AGDF to Commission Staff's First Set of Data Responses (10, 12, 13, 20, 22, 25) in the referenced docket.

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a. Person responsible for this electronic filing:

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b. Docket No. 130167-EG – Petition for approval of natural gas energy conservation programs for commercial customers, by Associated Gas Distributors of Florida.

c. On behalf of: AGDF

d. There are a total of pages: 10

e. Description: Responses to First Set of Data Requests (10, 12, 13, 20, 22, 25)

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October 8, 2013

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Ms. Ann Cole, Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 130167- EG-- **Petition for approval of natural gas energy conservation
programs for commercial customers, by Associated Gas Distributors of Florida.**

Dear Ms. Cole:

Attached for electronic filing, please find the Associated Gas Distributors of Florida's additional
Partial Responses of the AGDF to Commission Staff's First Set of Data Responses in the
reference docket (Requests 10, 12, 13, 20, 22, and 25), regarding the proposed conservation
programs for commercial customers.

As always, thank you for your assistance with this filing. If you have any questions whatsoever,
please do not hesitate to contact me.

Sincerely,

Beth Keating and Lila Jaber
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Attorneys for the AGDF

RE: Docket No. 130167-EG- Petition for approval of natural gas energy conservation programs for commercial customers, by Associated Gas Distributors of Florida.

AGDF's Partial Responses to Commission Staff's First Set of Data Requests

AGDF's responses to specific items of the PSC Staff's First Set of Data Requests (Requests 10, 12, 13, 20, 22, and 25), issued August 14, 2013, are as follows:

10.   Does the modeling, which AGDF or FSEC used to establish the proposed commercial programs, assume full participation of its commercial customers during the first year the programs are offered?

AGDF Response: In order to accurately account for all of the costs associated with managing the proposed Commercial Energy Conservation programs, AGDF was required to construct a methodology that accounts for advertising and labor costs. Our approach was to develop a cost structure that was tied to the projected number of program participants (rebates processed).

Although AGDF believes it is unrealistic to expect full participation of the Commercial Conservation program in the first year, the model assumes full participation and accounts for the costs associated with full participation for two reasons.

First, the model does not have the functionality within it to alter program costs from year to year based on projected participation. Second, by assuming full participation, the model assumes more advertising and labor costs than would be assumed if a lower participation projection were used. This conservative approach ensures that all possible program costs are accounted for in the first year of program implementation.

a.   If so, why does AGDF believe it is appropriate to use participation rates from residential programs to project participation rates for commercial programs?

AGDF Response: There are 4 main reasons for utilizing participation rates from residential programs to project participation rates for commercial programs.

First, every AGDF utility offers residential rebate programs so AGDF was given a uniform metric that allowed us to quantify the labor and advertising costs associated with each program participant. We could then also use this metric to project participants.

Second, although some of the AGDF utilities offer or have offered various Commercial programs, none of those programs were appliance specific. In other words, none of the programs provide a fixed amount of money for the installation of any specific appliance. By comparison, the proposed Commercial rebate programs proposed by AGDF in this Docket include a fixed dollar amount for specific appliances.

Third, the appliances included in the residential conservation programs and the proposed commercial conservation programs are very similar. The existing residential conservation programs include the water heaters (tank and tankless), ranges, furnaces and dryers, while the proposed commercial conservation programs also include water heaters (tank and tankless), ranges, and dryers, as well as fryers. Although there are subtle differences (capacity, performance, quality, etc.,) between residential and commercial appliances, the two categories of appliances are similar enough to be used as a baseline reference for calculating participation rates, as well as advertising and labor costs per program participant.

Finally, the AGDF utilities plan to market and advertise the commercial conservation programs in a very similar manner to the approach taken with current residential programs. Thus, the residential advertising model, as discussed in Question 7a, serves as a good baseline for determining the advertising costs in a manner consistent with the approach required by the cost effectiveness model.

b. **Why does AGDF believe it is appropriate to assume full participation in the first year of a new program?**

AGDF Response: As noted above, AGDF does not believe it is realistic to expect full participation of the Commercial Conservation program in the first year. The model nonetheless assumes full participation and accounts for the associated costs for two reasons: 1) the model does not have the functionality within it to alter program costs from year to year based on projected participation; and 2) by assuming full participation, the model incorporates a conservative approach by assuming more advertising and labor costs than would be assumed if lower participation projections were used.

It is also worth noting that although the cost effectiveness model assumes full participation costs when analyzing whether each individual program passes the G-RIM and Participant Test criteria, each AGDF utility still has the option of utilizing a limited-participation approach (in the first years) when projecting their respective Commercial Conservation program budget costs and ECCR impact costs.

c. **How does the assumption of full participation affect the model's cost-effectiveness results?**

AGDF Response: By assuming full participation, the model assumes more advertising and labor costs than would be assumed if lower participation projection were used. As noted previously, this allows AGDF to be conservative with program costs in the first year of program implementation.

d.   Please provide a breakdown of the annual participation rates of the AGDF utilities' residential programs, on which the proposed commercial programs are based, for the first three years of their existence.

AGDF Response:

AGDF was unable to determine historical participation rate data for the first 3 years of the residential programs.

Although AGDF believes that residential program cost and participation data are useful in projecting costs and participation rates for the commercial program, AGDF does not believe that extrapolating data from the first three years of the residential programs would be helpful. It is important to note that some consideration should be given to several situational factors. These factors tend to impair the usefulness of using historical participation rates for the inception of the referenced residential programs for purposes of projecting participation rates for the proposed commercial programs:

- The original residential rebate programs were <u>not</u> filed jointly as an AGDF initiative, but were instead submitted separately by AGDF member local distribution companies ("LDCs");

- The original residential rebate programs had differing rebate dollars among the LDCs;

- None of the AGDF LDCs had "up-and-running" Energy Conservation departments to run the programs at the time the residential programs were initiated; and

- There was not a statewide unified and cohesive marketing and communication platform for the LDCs.

e.   Why does AGDF believe it is appropriate to use FPUC's historical participation rates of its currently approved residential programs as a baseline for its proposed commercial rebate programs?

AGDF Response: The four key reasons for using FPU as a baseline are:

1.   FPUC has a diverse customer base with high concentrations of customers in both South Florida, as well as Central Florida, which provided AGDF with diverse advertising cost information covering two regions of Florida.

2.   Of critical importance, FPUC has excellent internal accounting itemization of Residential Rebate related cost data. This level of itemization allowed for better differentiation between the amount of advertising and labor dollars being

spent on the various types of residential conservation (i.e. New Construction, Retention, Retrofit).

3.   The itemized cost data allowed AGDF to establish a baseline advertising cost ratio of total advertising dollars to total rebates processed, based on FPUC's historical residential advertising cost per rebate. Data from FPUC's 2010 Schedule CT-2 and 2011 Schedule C-3 were used in this process.

4.   This ratio was then applied to the estimated number of commercial program participants for each LDC to determine the advertising cost portion of the total Energy Conservation Program Costs. This advertising baseline rate was then adjusted to reflect each LDCs total historical advertising expenditures relative to total customers (based on Docket NO. 110004-GU Schedule CT-2).

This approach was deemed the most appropriate course of action to take to derive a methodology that best accounted for the advertising program costs associated with each rebate processed.

Note, this approach was also taken to calculate the labor costs as depicted in Appendix C of this petition.

12.   In the footnote on page 9 of the petition, AGDF states, "only the Indiantown division of Florida Public Utilities Company (FPUC) has rebate amounts that differ" from the other participating LDCs because of differences in the G-RIM and Participant Test scores. Please explain why Indiantown has different rebates.

AGDF Response: A combination of the utility-specific cost factors plugged into the G-RIM and Participants Tests analyses led to the differing results for the Indiantown division of Florida Public Utilities Company (FPUC) test results as compared to the other AGDF utilities. The most significant contributing factor was the Indiantown Division's smaller customer base, which impacts calculation of the program costs across the Indiantown customer base.

As depicted in Appendix D, the rebate dollar amounts for FPUC's Indiantown division represented the maximum allowable dollar amount that would pass the G-RIM and Participants Tests.

13. **Does the FSEC model for the G-RIM test include the modeling of carbon dioxide reduction? If so, please provide details regarding how carbon costs were factored into G-RIM modeling**

AGDF Response: Yes. However, at the outset and for purposes of clarification, AGDF notes that the cost effectiveness model should refer to "metric tons" instead of "tons," which is simply a matter of a conversion factor; i.e., 1 short ton (2000 lbs equiv) = 0.90718474 metric tons (2240 lbs equiv or 1000 kg).

The cost effectiveness model calculations carbon dioxide reduction as follows:

$$\text{Carbon Reduction [tons CO2/year]}^1 =$$

$$(\text{Annual kWh}*0.000718)-(\text{Annual Therms}*0.005)$$

CO^2 production based on 0.005 metric tons per therm and 0.000718 metric tons per kWh. [2]

Another way to conduct the CO^2 calculation is as follows:[3]

1kWh = 0.0007 metric tons CO^2 (number is rounded)

1 Therm = 0.005 metric tons CO^2

Additional backup documentation from the EPA website has been included as an Appendix to this response titled, Back Up Documentation for PSC Staff Question # 13.

20. **Please explain the basis for the discount rate used in the proposed commercial appliance program modeling.**

AGDF Response: The cost effectiveness model utilized each of the AGDF LDCs' discount rates that were reflected in their respective June 2012 Earning Surveillance Reports.

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[1] This should instead read [metric tons CO2/year] at cell F9 on the Assumptions tab.

[2] CO^2 emissions data: http://corvallisgreenhomes.com/green/Energy%20Cost%20Comparison.pdf

[3] See, to run simulations, visit U.S. Environmental Protection Agency ("EPA") website: http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results. Use Option 1 and enter "1" in the first box for units. Then, choose either "kilowatt-hours of electricity" or "therms of natural gas" in the drop down and select Calculate Equivalent. Then scroll back up to Option 2 data and see the conversion numbers.

22. **During AGDF's presentation to Commission Staff on July 10, 2013, AGDF stated that FSEC considered electric and gas customer charges in calculating the Participants Test results for the proposed commercial appliance programs. Please explain the basis for the assumption that a participating customer avoids a portion of the monthly electric customer charge.**

AGDF Response: In the context of the referenced workshop discussion, the overlapping discussion of two distinct topics, "Electric Rate Data" and "Avoided Electric Costs," may necessitate some clarification.

With regard to the reference to electric utility rate information, this information demonstrates how the FSEC cost effectiveness model accounts for all NG and Electric rate components. This is clearly evidenced within the model on the tab titled "Electric Cost Data."

As for "Avoided Electric Costs," as required by the PSC's "Cost Effectiveness Manual for Natural Gas Utility Demand Side Management Programs," the model accounts for each of the following as benefits associated with proposed programs: 1) Avoided Electric kWh; 2) Avoided Electric KW; and 3) Avoided Electric Appliance O&M. The benefits that are plugged into the Participants Model are specific to the electric appliance that is theoretically being replaced with a gas appliance. However, to clarify, participation in the proposed program does not cause the customer to avoid a portion of their electric customer charge, and this assumption is not made within the model.

25. **How do AGDF and its members intend to market the proposed commercial appliance programs?**

AGDF Response: Each AGDF utility will craft individual marketing campaigns and initiatives designed to promote the proposed programs to their respective customer bases. In addition to utility-specific strategies, the following marketing and outreach initiatives have been discussed in great detail and will be pursued should the petition be approved:

• Inclusion of rebates within the Department of Agriculture and Consumer Services, Energy Office Energy Clearinghouse[4];

• Inclusion of rebates within the Department of Energy's DSIRE Database of State Incentives for Renewable and Efficiency[5];

• Each LDC will promote the proposed rebates on their respective Websites;

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[4] http://www.freshfromflorida.com/Energy/

[5] http://www.dsireusa.org/incentives/index.cfm?re=0&ee=0&spv=0&st=0&srp=1&state=FL

• Direct mailing campaigns would be a great way to make the initial contact to inform commercial customers about the rebate programs;

• Key account managers from each LDC will directly promote the programs to commercial customers;

• Annual Industry group sponsorships of conferences such as the Florida Restaurant & Lodging Association (FRLA) conferences will provide a platform to promote programs;

• Manufacturer outreach to inform vertical-market supply chain stakeholders;

• Retailer outreach (similar to how residential rebate programs are currently promoted);

• Inclusion on the Florida Natural Gas Association website; and

• Sub-Contractor Training workshops.

a.   How do AGDF and its members plan to monitor the advertising cost and success of the marketing plan?

AGDF Response: Upon approval and implementation, AGDF members, as opposed to AGDF, will be responsible for ongoing monitoring of the conservation programs and all associated costs. Each AGDF utility will monitor their respective programs' success and costs in a manner consistent with that used for their current approved conservation programs. All costs, including advertising costs, will be monitored by the companies as are costs for current programs, and all such costs will be subject to Commission audit through the annual Conservation program audits in the ongoing Natural Gas Conservation Cost Recovery Clause proceedings. Likewise, participation rates for these programs will be monitored consistent with the mechanisms in place for monitoring current programs. Separate, new monitoring and/or accounting mechanisms specifically for these programs are not currently contemplated.

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Calculations and References

This page describes the calculations used to convert greenhouse gas emission numbers into different types of equivalent units. Go to the equivalency calculator page for more information.

Electricity Reductions (kilowatt-hours)

The Greenhouse Gas Equivalencies Calculator uses the Emissions & Generation Resource Integrated Database (eGRID) U.S. annual non-baseload CO_2 output emission rate to convert reductions of kilowatt-hours into avoided units of carbon dioxide emissions. Most users of the Equivalencies Calculator who seek equivalencies for electricity-related emissions want to know equivalencies for emissions **reductions** from energy efficiency or renewable energy programs. These programs are not generally assumed to affect baseload emissions (the emissions from power plants that run all the time), but rather non-baseload generation (power plants that are brought online as necessary to meet demand). For that reason, the Equivalencies Calculator uses a non-baseload emission rate.

Emission Factor

$$7.0555 \times 10^{-4} \text{ metric tons } CO_2 \text{ / kWh}$$

(eGRID2012 Version 1.0, U.S. annual non-baseload CO_2 output emission rate, year 2009 data)

Notes:

- This calculation does not include any greenhouse gases other than CO_2.
- This calculation does not include line losses.
- Individual subregion non-baseload emissions rates are also available on the eGRID Web site.
- To estimate indirect greenhouse gas emissions from electricity use, please use Power Profiler or use eGRID subregion annual output emission rates as a default emission factor (see eGRID2012 Version 1.0 Year 2009 GHG Annual Output Emission Rates (PDF) (1 p, 312K, About PDF)).

Sources

- (EPA 2012). eGRID2012 Version 1.0. U.S. annual non-baseload CO_2 output emission rate, year 2009 data, U.S. Environmental Protection Agency, Washington, DC.

eGRID2012 Version 1.0 Year 2009 GHG Annual Output Emission Rates

Annual total output emission rates for greenhouse gases (GHGs) can be used as default factors for estimating GHG emissions from electricity use when developing a carbon footprint or emission inventory. Annual non-baseload output emission rates should not be used for those purposes, but can be used to estimate GHG emissions reductions from reductions in electricity use.

eGRID subregion acronym	eGRID subregion name	Annual total output emission rates			Annual non-baseload output emission rates		
		Carbon dioxide (CO₂) (lb/MWh)	Methane (CH₄) (lb/GWh)	Nitrous oxide (N₂O) (lb/GWh)	Carbon dioxide (CO₂) (lb/MWh)	Methane (CH₄) (lb/GWh)	Nitrous oxide (N₂O) (lb/GWh)
AKGD	ASCC Alaska Grid	1,280.66	27.74	7.69	1,320.75	33.16	8.34
AKMS	ASCC Miscellaneous	521.26	21.78	4.26	1,469.44	61.53	12.10
AZNM	WECC Southwest	1,191.35	19.13	15.58	1,187.67	22.25	9.12
CAMX	WECC California	658.68	28.94	6.17	993.89	33.52	4.07
ERCT	ERCOT All	1,181.73	16.70	13.10	1,155.44	19.68	7.59
FRCC	FRCC All	1,176.61	39.24	13.53	1,301.40	36.04	11.91
HIMS	HICC Miscellaneous	1,351.66	72.40	13.80	1,615.98	91.06	17.19
HIOA	HICC Oahu	1,593.35	101.74	21.98	1,621.42	107.94	18.73
MROE	MRO East	1,591.65	23.98	27.04	1,868.23	29.40	30.40
MROW	MRO West	1,628.60	28.80	27.79	2,114.93	61.83	37.41
NEWE	NPCC New England	728.41	75.68	13.86	1,157.44	61.72	14.43
NWPP	WECC Northwest	819.21	15.29	12.50	1,404.55	38.56	18.79
NYCW	NPCC NYC/Westchester	610.67	23.75	2.81	1,118.06	22.47	2.31
NYLI	NPCC Long Island	1,347.99	96.86	12.37	1,336.59	30.78	3.51
NYUP	NPCC Upstate NY	497.92	15.94	6.77	1,347.12	41.08	16.87
RFCE	RFC East	947.42	26.84	14.96	1,628.97	32.94	22.46
RFCM	RFC Michigan	1,659.46	31.41	27.89	1,834.66	35.17	29.15
RFCW	RFC West	1,520.59	18.12	25.13	2,001.76	24.56	32.10
RMPA	WECC Rockies	1,824.51	22.25	27.19	1,756.62	23.54	22.51
SPNO	SPP North	1,815.76	21.01	28.89	2,147.53	26.32	31.82
SPSO	SPP South	1,599.02	23.25	21.79	1,513.73	25.22	15.11
SRMV	SERC Mississippi Valley	1,002.41	19.45	10.65	1,201.66	25.72	7.11
SRMW	SERC Midwest	1,749.75	19.57	28.98	2,192.85	25.04	35.89
SRSO	SERC South	1,325.68	22.27	20.78	1,622.00	27.22	23.50
SRTV	SERC Tennessee Valley	1,357.71	17.28	22.09	1,921.12	25.16	30.61
SRVC	SERC Virginia/Carolina	1,035.87	21.51	17.45	1,677.35	38.55	25.56
U.S.		1,216.18	24.03	18.08	1,555.48	30.83	19.76
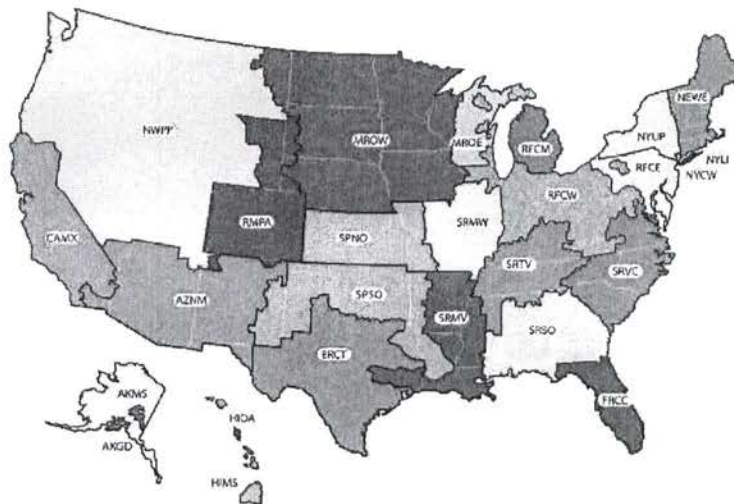
This is a representational map; many of the boundaries shown on this map are approximate because they are based on companies, not on strictly geographical boundaries.

http://www.epa.gov/egrid