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FEBRUARY 26, 2024

**BY E-PORTAL**

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

**Re: Docket No. 20230121-EG – Petition of Associated Gas Distributors of Florida (AGDF)  
for Approval of Conservation Demonstration and Development Program**

Dear Mr. Teitzman:

Attached for filing, please find the Associated Gas Distributors of Florida's Responses to Staff's Second Data Requests.

Thank you for your assistance with this filing. As always, please don't hesitate to let me know if you have any questions whatsoever.

Sincerely,

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MEK

**Re: Docket No. 20230121-EG – Petition of Associated Gas Distributors of Florida (AGDF) for Approval of Conservation Demonstration and Development Program**

Responses of Associated Gas Distributors of Florida (AGDF) to Staff's Second Set of Data Requests

1. Please refer to the petition, Paragraph 14, which states in part that “the AGDF members have had an opportunity to consider the benefits of implementation of a permanent program. During this time, new technologies and resource opportunities have also become more prevalent, suggesting that revisiting the CDD on a more permanent basis could lead to the realization of meaningful conservation benefits for the customers of the participating AGDF members.”
  - A. Explain how a more permanent CDD program could achieve “meaningful conservation benefits” better than a time-limited CDD program such as was approved in 2010?

**AGDF RESPONSE:**

A permanent R&D program offers significant advantages:

Resource Planning: It gives research bodies the certainty needed for strategic planning of their resources and long-term research goals.

Clear Expectations: Defined expectations enable institutions to better meet project timelines and deliverables, and to plan their research cycles with future submissions in mind.

Stronger Partnerships: Ongoing collaborations build trust and integration among researchers and industry players, enhancing collective efforts.

Detailed Research: Sustained programs allow for complex and evolving projects that require more time to yield results, encouraging ambitious proposals.

Industry Engagement: The promise of continuous engagement motivates manufacturers and installers to commit resources and strive for innovations that align with industry needs.

Iterative Progress: A long-term program supports the trial and error necessary for substantial scientific breakthroughs.

Overall, a more permanent R&D program fosters a fertile environment for cumulative knowledge, innovation growth, and maximized research impact.

- B. Please describe the new technologies and resource opportunities that have become more prevalent since the last implementation of the CDD programs.

**AGDF RESPONSE:**

Emerging gas technologies presenting a compelling case for a new research and development program include:

1. Combined Heat and Power (CHP): With its potential to provide simultaneous generation of electricity and thermal energy from a single fuel source, CHP applications have immense prospects in commercial settings. Through the capture of waste heat, CHP systems offer heightened efficiency, reduced emissions, and cost savings. R&D could focus on making CHP solutions scalable and more adaptable to diverse business sizes and types.

3. High Efficiency Condensing Gas Technologies: New generation furnaces and water heaters, with enhanced condensing capabilities, provide substantial gains in energy efficiency. They extract heat from exhaust gases that would otherwise be lost. R&D is vital to advance these technologies, reduce costs, and improve reliability for wider market penetration.

4. AI and Digital Enhancement: The integration of AI into gas appliances offers unprecedented capabilities in monitoring, predictive maintenance, and operational efficiency. Investigating the core underpinnings of a gas conservation to best encourage the development and integration of connected gas devices.

5. Resiliency and Backup Generation: Severe weather events necessitate robust backup solutions. On-site gas generators provide reliable energy during outages, research into retrofitting these backup systems (and buildings) for enhanced CHP capabilities for various end-use customers groups could be considered compelling research.

Overall, these technological avenues promise to make gas energy cleaner, more efficient, and adaptable to the challenges of climate change and energy demand. R&D will play a critical role in realizing these innovations at scale and ensuring economic and environmental benefits.

- C. Please describe what “meaningful conservation benefits” may result from revisiting CDD on a more permanent basis.

**AGDF RESPONSE:**

A more permanent program will enable the AGDF to have a more robust CDD program through consistency and strategic planning, the cultivation of relationships, leveraging of ideas - and lessons learned - across the AGDF membership, and the clear definition of expectations. It is our expectation that a longer, more robust CDD program will, in turn, allow more technologies and avenues to be explored and thus result in more successful outcomes in terms of real conservation technologies and programs that can be implemented by the utilities.

2. Please refer to the Petition, Paragraph 22.

- A. How did AGDF determine the allocation of costs between member utilities as shown in the table?

**AGDF RESPONSE:**

The cost distribution among member utilities, as outlined in paragraph 22, is based on historical maximum per-project contributions previously utilized in the AGDF Temporary Conservation Demonstration and Development Program.

- B. If AGDF expects that a single project will incur costs greater than \$157,000 per year, is it correct that AGDF, at its option, would need to either seek Commission approval for exceeding the cap or engage another utility, such as PGS, to cover the excess cost amount? Please explain AGDF’s Commission solicitation of approval/notification intent under both conditions.

**AGDF RESPONSE:**

Yes. further approval from the Commission would be necessary in order to exceed the proposed spending caps. The utilities expect, however, to be able keep expenses below the thresholds. In those instances where costs exceed expectation, the utilities may be able to nonetheless stay below the caps by sharing the expenses.

3. Please refer to the Petition at paragraph 23, which provides information on the estimated impacts for residential customers, and Paragraph 22, which provides information on total CDD expenses. Residential CDD incremental expenses per utility in paragraph 23 appear to equal the total CDD expenses per utility shown in paragraph 22, indicating that all expenses have been allocated to the residential class. For example, paragraph 23 shows that Sebring's expense is \$6,000 for 3 projects (the difference of \$13,334 and \$7,344), the same as the amount shown in paragraph 22.
  - A. Did AGDF intend to allocate all expenses to the residential class? If so, please explain why the residential class is allocated 100 percent of proposed CDD expenses.

**AGDF RESPONSE:**

AGDF did not intend to allocate all CDD expenses to the residential category. We aimed to demonstrate the potential impacts on each residential ratepayer for every AGDF utility under different project selections. After review, we found that the total CDD costs would be distributed among both commercial and residential customers using a 50% expense application.

- B. If not, submit a revision of the table presented in paragraph 23 (in an Excel or similar format with cell formulas intact and unlocked) that reflects a cost allocation to the residential class based on Commission-approved class cost allocation studies for the utilities.

**AGDF RESPONSE:**

Please see the revised table 23 and the accompanying Workbook titled Response to DR\_2\_Q\_3 A+B\_AGDF\_2-12-24 (file name AGDF Response to DR 3A and B), included as a separate email attachment.

- C. Does AGDF believe the proposed CDD programs will benefit residential and commercial customer classes equally? Please explain your response.

**AGDF RESPONSE:**

Yes. The conservation demonstration and development program will bring advantages to both commercial and residential customers, because it will investigate and test technologies and systems that apply in the commercial context, as well as those that apply in the residential context and that can be implemented for both residential and commercial customers. While not every technology considered will have applicability for every class of customers, the value of a more permanent CDD program is that there will be more time to review and evaluate a wide range of technologies that can provide benefits to all customers.

- D. Does AGDF and its member utilities have a perspective as to what its desired mix of residential and commercial CDD projects they will pursue in 2024 and beyond? If so, please identify what that mix is intended to be.

**AGDF RESPONSE:**

AGDF does not have a preconceived expectation or forecast regarding the allocation of funding for specific project types. Ideally, a balanced distribution of costs and programs would be maintained between residential and commercial customers.

- E. The table presented in paragraph 23 includes a referencing note indicating “LDC ECCR cost figures sourced from Docket No. 20230004 August.” Please explain why AGDF used pre-tax cost recovery factors in this table, instead of the Commission-approved 2024 factors that were approved in Order No. PSC-2023-0346-FOF-GU, which reflect the application of a 1.00503 percent tax factor?

**AGDF RESPONSE:**

The timing of constructing the table before the order was issued was the main reason for the proposed ECCR figures. Revised Table 23 provided in response to DR 3B of these data requests has been updated with the correct ECCR rates approved in order PSC 23-0346-FOF-GU.

F. Please complete the table below showing AGDF’s understanding of the potential residential bill impacts (i.e., the dollar amount and percent impacts to the NGCCR portion of the bill) for a residential customer using 20 therms per month, assuming one, two, and three CDD projects, based on the estimated CDD expenses appearing in Paragraph 22 of the petition and approved residential allocation factors. Please populate Columns G through L as additive, thereby indicating the increase in the bill for two or three projects combined, compared to the base-line of zero projects.

**AGDF RESPONSE:**

	Base-Line (Zero Projects)			Adding One Project			Adding Two Projects			Adding Three Projects		
	A	B	C	D	E	F	G	H	I	J	K	L
	2024 NGCCR Factors	Average Usage/ Month	NGCCR portion of Monthly Bill	Bill Increase to NGCCR portion of Monthly Bill		Revised NGCCR portion of Monthly Bill	Bill Increase to NGCCR portion of Monthly Bill		Revised NGCCR portion of Monthly Bill	Bill Increase to NGCCR portion of Monthly Bill		Revised NGCCR portion of Monthly Bill
Rate Class	(\$/therm)	Therms	(\$) <sup>1</sup>	(\$)	(%) <sup>1</sup>	(\$)	(\$)	(%)	(\$)	(\$)	(%)	(\$)
FPU NG (Res. 1)	0.130350	20	\$2.61	\$0.02	0.007	\$2.62	\$0.05	0.019	\$2.67	\$0.08	0.031	\$2.76
FPU NG (Res. 2)	0.066570	20	\$1.33	\$0.02	0.018	\$1.36	\$0.06	0.041	\$1.41	\$0.09	0.065	\$1.50
FPU NG (Res. 3)	0.036550	20	\$0.73	\$0.03	0.037	\$0.76	\$0.06	0.080	\$0.82	\$0.10	0.122	\$0.92
FCG (RS-1)	0.294840	20	\$5.90	\$0.01	0.002	\$5.91	\$0.06	0.009	\$5.97	\$0.10	0.017	\$6.07
FCG (RS-100)	0.141920	20	\$2.84	\$0.03	0.010	\$2.87	\$0.07	0.025	\$2.94	\$0.12	0.040	\$3.06
FCG (RS-600)	0.085220	20	\$1.70	\$0.03	0.020	\$1.74	\$0.08	0.045	\$1.82	\$0.13	0.070	\$1.94
Sebring (TS-1)	0.129850	20	\$2.60	\$0.34	0.130	\$2.94	\$0.78	0.266	\$3.72	\$1.49	0.401	\$5.21
St. Joe (RS-1)	0.339220	20	\$6.78	\$0.08	0.012	\$6.86	\$0.19	0.028	\$7.06	\$0.31	0.045	\$7.37
St. Joe (RS-2)	0.240490	20	\$4.81	\$0.09	0.018	\$4.90	\$0.20	0.042	\$5.10	\$0.33	0.065	\$5.43
St. Joe (RS-3)	0.181600	20	\$3.63	\$0.09	0.026	\$3.73	\$0.21	0.057	\$3.94	\$0.35	0.088	\$4.28

G. In Order PSC-15-0095-PAA-EG, the Commission noted that AGDF’s proposal of bill impacts of \$0.83 per month for residential customers represented a substantial potential rate increase compared to the original estimate of \$0.33 per month. Please explain whether the potential increase for residential customers of Sebring as depicted in AGDF’s response to Question 3.F. above is reasonable, given the Commission’s determination in Docket No. 140196-EG in 2015 to reject the proposed potential rate increase in that docket.

**AGDF RESPONSE:**

AGDF has revised the ECCR residential impact tables to incorporate corrections identified by staff in questions 3A and 3B. Previously, the rate impact tables incorrectly assumed 100% of the projected CDD expenses were allocated to residential customers. The revised projection now accurately accounts for a 50% allocation from residential and commercial sources, resulting in a reduced detrimental impact to the Sebring customer rate base. With these revisions, is AGDF's view is that this is reasonable.

- H. In its response to Staff’s First Data Request, No. 5.D., AGDF states that it expects to submit projects in 2024 that will pertain to the Oil Conserving Fryer project, which was a commercial project, yet in its petition, all CDD Program Costs appear to be allocated to the residential classes. Please explain why present-day projects that pertain to a commercial project should have program cost allocated to residential classes?

**AGDF RESPONSE:**

AGDF has made revisions to its originally proposed ECCR residential impact tables to more accurately delineate the allocation of CDD expenses between commercial and residential customers. The overarching objective of AGDF is to provide support for both residential and commercial customers, ensuring their contributions to the annual CDD program budget align with the number of selected projects.

Moreover, the oil conserving fryer research project has significantly contributed to AGDF's ongoing efforts to update its residential and commercial energy conservation programs. This research project has provided valuable data that is being utilized to inform the baseline assumptions for cost effectiveness, inputs for the gas rate, impact measurement, and the participant test, all of which are crucial for an anticipated filing later in 2024.

4. Please refer to AGDF’s response to Staff’s First Data Request, Nos. 2.A. and No. 5. In part, the AGDF’s response to Staff’s First Data Request, Nos. 2.A. states that the Petition seeks “approval for each participating member of a CDD program,” and “contemplates that, if approved, each participating member will include a project description page . . . in C-5 Schedules filed in the annual conservation cost recovery docket.” In AGDF’s response to Staff’s First Data Request, No 5, AGDF has indicated that the 2018 Report has not directly impacted the cost-effectiveness of any current conservation programs offered by the Petitioners. Please answer the following:

- A. Explain why the AGDF is seeking Program approval before specific project descriptions are available for the Commission to review, given that past CDD programs have not impacted the cost-effectiveness of programs offered by the Petitioners.

**AGDF RESPONSE:**

AGDF is requesting approval for the CDD program in advance of program details being available, as its member companies require the program account to allocate costs associated with prioritizing CDD projects and soliciting research proposals. All of these activities necessitate a program to incur the associated startup costs.



- B. Did AGDF consider reversing the process, whereby AGDF would submit a project specific collaborative request, including a fully developed project, designed and summarized, with specific cost estimates set forth and study period and cost recovery period identified? If not, why not?

**AGDF RESPONSE:**

No, for several reasons. First, the establishment of permanent programs and their corresponding account numbers enables the incurring of expenses to develop the infrastructure needed for a successful CDD program that consistently evaluates emerging technologies for project funding. Second, the request appears to suggest a project by project CDD approach, which would reduce the AGDF members' ability to leverage the scope of the CDD program with its research partners and would require the members to incur additional regulatory filing expense for every technology that they intend to review.

5. Please refer to AGDF's response to Staff's First Data Request, Nos. 3.A.

- A. This response did not specifically reference the CDD Funding Request Form or discuss the role AGDF would play in approving/denying the same. Please explain the purpose of the form, how it (the form) is used and/or processed, by whom, and what entity approves/denies funding requests.

**AGDF RESPONSE:**

The purpose of the CDD Project Funding Request Form is to ensure that the foundational effort or project being examined has a direct link to conservation. Additionally, the form is meant to be used solely for internal purposes, including reporting and expense tracking. AGDF would not have any role in approving the form, as these decisions would be made at the individual utility level. Furthermore, the form is meant to set an example of expected standards, which each utility will need to approve and use to justify CDD expenditures. In response to staff's question No. 5 B, AGDF has submitted a revised form to account for the possibility of expense sharing, including which utilities are involved and the agreed-upon cost share as an addition to the form.

- B. The petition, at Page 3, Paragraph 9, indicates that member LDCs recognize the importance of working collaboratively in promoting energy efficiency and conservation. However, the proposed CDD Funding Request Form is to be submitted and signed by a single utility, and it is unclear whether the budget and costs to be identified in the form are those of the utility or multiple utilities. Please explain whether the form is designed to address the project of a single utility or multiple utilities, and how this form leads to collaborative promotion of energy efficiency and conservation.

**AGDF RESPONSE:**

Expanding the CDD Project Funding Request Form to include additional information that improves record-keeping and clarifies the economic division of project expenses across multiple utilities is a helpful addition. To incorporate these enhancements, the revised CDD Project Funding Request Form has been expanded to address the scenario of a multi-utility cost-sharing approach for CDD projects and that revised form is attached hereto.

- C. Is it a proposed requirement for all projects submitted to AGDF using the CDD Funding Request Form that they be collaborative, with shared funding across all member utilities? Please explain your response.

**AGDF RESPONSE:**

Each AGDF member utility will autonomously approve projects using the CDD project funding request form as a tool for tracking and reporting project expenses. AGDF will not be involved in approving projects but may aid in prioritizing and proposing projects for individual consideration by utilities. As mentioned in previous responses, the plan is to utilize the three annual in-person meetings conducted by AGDF to prioritize, solicit RFPs, and select project funding for individual or joint utility efforts.

6. Please refer to AGDF's response Staff's First Data Request, No. 5.A.

- A. For each participating utility, address the probable timing of when program costs for prospective CDD projects would be submitted for cost recovery and be reflected in customer bills.

**AGDF RESPONSE:**

AGDF member utilities plan to incorporate an annual budget allocation for conservation demonstration and development initiatives identified before the annual projection filing. Any CDD cost recovery would take effect on the commencement date of the new ECCR rate in the annual ECCR docket for that year. Recovery for projects identified after the projection filing would not begin recovery until incorporated in the ECCR rate approved for the following year.

- B. If the Petition is approved, is it correct that all AGDF-selected CDD projects will be submitted for Commission review prior to incurring costs related to the project in question, thus seeking the Commission's preapproval before engaging in the project? Please explain.

**AGDF RESPONSE:**

AGDF will not make project selections but may support prioritization efforts and the issuance of RFPs for project selection by individual utility companies. AGDF requests approval of the program and has established expenditure caps for projects. If these caps are exceeded, commission approval would be necessary.

7. Please refer to AGDF's response to Staff's First Data Request, No. 5.B. In part, the response indicated that the findings from the Gas Heat Pump Field Tests were not incorporated as modifications to current conservation programs, or developed into new programs. Were the findings from the Gas Heat Pump Field Tests published or presented in natural gas industry-related articles, professional or research journals, publications, or in any other forum? If applicable, provide a detailed response.

**AGDF RESPONSE:**

While the results of the gas heat pump failed test were not featured in any natural gas industry-related articles or publications, The University of South Florida's Clean Energy Research Center (CERC) presented a summary of their findings during the 2014 Florida Energy Systems Consortium annual conference. Although gas heat pumps have not been included in the AGDF member utility companies' CDD petition, commercial gas heat pumps are indeed part of the ongoing cost benefit analysis in preparation for an update and expansion of residential and commercial gas conservation programs in 2014.

8. Please refer to AGDF’s response to Staff’s First Data Request, No. 5.C. In part, the response indicated that the findings from the Oil Conserving Fryer Tests were not incorporated as modifications to current conservation programs, or developed into new programs. Were the findings from the Oil Conserving Fryer Tests published or presented in natural gas industry-related articles, professional or research journals, publications, or in any other forum? If applicable, provide a detailed response.

**AGDF RESPONSE:**

Indeed, the outcomes of the oil-conserving fryer test were communicated to key stakeholders like the Florida Restaurant Lodging Association through educational sponsorships, granting AGDF member utility representatives numerous chances to directly impart the lessons learned and findings from those field tests.

9. Please refer to AGDF’s response to Staff’s First Data Request, No 5.D.
  - A. Participating utilities are said to be “planning to revamp {utility name} energy conservation programs in 2024 through a separate AGDF petition utilizing data from prior CDD efforts to conduct a cost-benefit analysis.” What prior CDD efforts are referenced here and when were such CDD efforts conducted?

**AGDF RESPONSE:**

The AGDF member utilities participating in this CDD petition indeed intend to submit a subsequent petition in 2024 to revise the residential and commercial energy conservation programs. These program updates will encompass workbooks featuring multiple tabs that outline electric cost data, natural gas cost data, assumptions, and equipment summaries. Our previous research from CDD projects has informed the assumptions for gas heat pumps and fryers.

- B. If the CDD efforts reference in this passage are those discussed in the June 28, 2018 AGDR CDD Activity Final Report, please explain why the results contained in the report have not been pursued to modify the conservation programs of member utilities during the intervening 6 years.

**AGDF RESPONSE:**

The initial attempt to update and revamp energy conservation programs was initially scheduled to occur in 2019 but was postponed. The current AGDF CDD petition is the first of two petitions planned for 2024, with the update to the conservation, residential, and commercial programs being the subsequent filing. Ideally, there would have been less time between the utilization of the research and the program modification submission. However, our ability to complement the research data with additional information compensates for any perceived decrease in value due to the six-year gap.

- C. If the CDD efforts referenced in this passage are those discussed in the June 28, 2018 AGDR CDD Activity Final Report, please explain how such results can be relied upon to guide costing analysis in 2024 considering such results are now approximately 6 years old and are based on data collection dating back to 2015?

**AGDF RESPONSE:**

The research organization conducting the cost-benefit analysis for the updated gas rebate programs can enhance the age of the data from the previous CDD studies with other available technical research data. Beyond the technical data, there were additional benefits, such as valuable lessons learned for CDD project management. These include the best methods for incentivizing and identifying host participants, as well as collaborating with original equipment manufacturers to address field testing challenges, and identifying research institutions capable of installing the appropriate data acquisition systems need for each project.

- D. AGDF's response to Staff's First Data Request, No 5.D. (regarding Oil Conserving Fryer tests) indicates that data and findings from prior CDD efforts will be used to conduct a cost-benefit analysis, and be used to revamp energy conservation programs in 2024, yet AGDF's response to Staff's First Data Request, No 4.A. indicates that member utilities have no specific projects under consideration. Please reconcile these statements.

**AGDF RESPONSE:**

AGDF identifies two distinct issues. Firstly, AGDF member utilities indeed plan to submit an updated petition for energy conservation programs. This update will encompass an updated cost-benefit analysis for all existing residential and commercial programs and will also introduce proposals for new programs such as gas heat pumps. Secondly, as previously mentioned in our responses, AGDF members do not have any current CDD projects under consideration. Initiating a project requires a process to reach the point where funding is viable. This process involves utilizing the three annual in-person meetings that AGDF presently hosts to prioritize potential projects, issue RFPs, and select projects for funding. This comprehensive process cannot commence until AGDF members have the capacity to recover costs associated with prioritizing and selecting CDD projects.

10. What vetting process is AGDF expecting to engage to ensure that any project submitted to it by member utilities is based strictly on potential energy efficiency and conservation enhancements and does not constitute into load building?

**AGDF RESPONSE:**

Based on previous AGDF CDD petitions, AGDF recognizes the significance of linking CDD funding to conservation efforts. The primary stipulation on the CDD funding request form highlights the necessity of a clear and evident connection to conservation. This linkage to conservation can manifest in various forms, such as projects generating data that can serve as input values for the Gas Rate Impact Measures (GRIM) Test, and the Participants' Test, as outlined in the Cost Effectiveness Manual for Natural gas Utility DSM Programs. Ultimately, utility approval will hinge on a robust connection to conservation, as documented and reported on the CDD Project Funding Request Form.

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## CDD Project Funding Request Submittal Form

# CDD Project: (*Sample*)

2/16/2024

### OVERVIEW

Please provide a brief explanation of what prompted this CDD funding opportunity:

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### GOALS

Please list the goals of this CDD funding opportunity and the organizations involved:

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### SPECIFICATIONS

Please specify the scope of research associated with this CDD funding opportunity:

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### BUDGET & TIMELINE

Please provide the expected timeline, the annual cost per year, and total project cost:

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## **EXPENSE SHARING**

Please provide a comprehensive list of any additional utility or third-party entities that will be participating in cost-sharing for this research effort. Include details of the total and individual costs associated with each party involved.

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## **UTILITY APPROVAL**

\_\_\_\_\_ (Utility Rep. Title) \_\_\_\_\_ (Signature)