

AUSLEY McMULLEN

ATTORNEYS AND COUNSELORS AT LAW

123 SOUTH CALHOUN STREET
P.O. BOX 391 (ZIP 32302)
TALLAHASSEE, FLORIDA 32301
(850) 224-9115 FAX (850) 222-7560

June 29, 2017

VIA: ELECTRONIC FILING

Ms. Carlotta S. Stauffer
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Tampa Electric Company's Petition to Approve Modifications to Neighborhood Weatherization and Energy Education, Awareness and Agency Outreach DSM Programs

Dear Ms. Stauffer:

Attached for filing in the above-styled matter is Tampa Electric Company's Petition to Approve Modifications to Neighborhood Weatherization and Energy Education, Awareness and Agency Outreach DSM Programs.

Thank you for your assistance in connection with this matter.

Sincerely,


James D. Beasley

JDB/pp
Attachment

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Tampa Electric Company's)
Petition to Approve Modifications to)
Neighborhood Weatherization and)
Energy Education, Awareness and)
Agency Outreach Programs.)
_____)

DOCKET NO. _____

FILED: June 29, 2017

**TAMPA ELECTRIC COMPANY'S PETITION
TO APPROVE MODIFICATIONS TO NEIGHBORHOOD
WEATHERIZATION AND ENERGY EDUCATION, AWARENESS
AND AGENCY OUTREACH DSM PROGRAMS**

Tampa Electric Company ("Tampa Electric" or "the company") hereby petitions the Commission to approve modifications to the company's Neighborhood Weatherization and Energy Education, Awareness and Agency Outreach Demand Side Management ("DSM") Programs to replace the current Compact Fluorescent Lamps ("CFL") that are included as components of the energy efficiency kits for each program with a specified number of Light Emitting Diode ("LED") lamps. As grounds therefor, the company says:

1. The persons to whom all notices and other documents should be sent in connection with this docket are:

James D. Beasley
jbeasley@ausley.com
J. Jeffry Wahlen
jwahlen@ausley.com
Ausley McMullen
Post Office Box 391
Tallahassee, FL 32302
(850) 224-9115
(850) 222-7560 (fax)

Paula K. Brown
regdept@tecoenergy.com
Manager, Regulatory Coordination
Tampa Electric Company
Post Office Box 111
Tampa, FL 33601
(813) 228-1444
(813) 228-1770 (fax)

2. Tampa Electric's Neighborhood Weatherization program was approved and implemented in March 2008 and the Energy Education, Awareness and Agency Outreach

conservation program was approved and implemented in March 2010. The vendor that packages the supporting energy efficiency kits for both of these programs notified the company in May 2017 that, at the end of 2017, they will no longer be procuring CFLs for their energy efficiency kits due to the price of LED lamps decreasing to a level that makes LED lamps a more economical alternative.

3. The proposed change will decrease the number of lamps provided in the Neighborhood Weatherization Program from eight CFL lamps to six LED lamps and will keep the number of lamps provided in the Energy Education, Awareness and Agency Outreach Program the same (i.e. four LED lamps in place of four CFL lamps). Each of these changes will maintain the summer and winter demand and annual energy savings from each program to at least what was prescribed in the company's Commission approved 2015-2024 DSM Plan.

4. This change does not affect the projected participation rate for either of these programs or any of the other items included in the energy efficiency kits as outlined in the company's Commission approved DSM Plan and associated DSM Standards.

5. If approved, Tampa Electric will transition to the LED lamps once the supply of CFLs has been fully exhausted, which is projected to be around the beginning of 2018.

6. As a result of this proposed change, Tampa Electric projects there would be a cost per participant increase in Neighborhood Weatherization of \$7.86 (going from an original overall cost of \$374 to \$382 per participant) and a cost per participant increase in Energy Education, Awareness and Agency Outreach of \$5.24 (going from an original overall cost of \$38 to \$43 per participant).

7. Attached hereto as Exhibit "A" is the company's existing Neighborhood Weatherization Program description. Attached hereto as Exhibit "B" is the company's proposed


Neighborhood Weatherization Program, marked in legislative format to reflect the change to six LED lamps. Attached hereto as Exhibit "C" is the company's existing Energy Education, Awareness and Agency Outreach Program description. Attached hereto as Exhibit "D" is the company's proposed Energy Education, Awareness and Agency Outreach Program, marked in legislative format to reflect the change to four LED lamps. Attached hereto as Exhibit "E" is a copy of the proposed Neighborhood Weatherization Program participation standards marked in legislative format to reflect the change to six LED lamps. Attached hereto as Exhibit "F" is a copy of the proposed Energy Education, Awareness and Agency Outreach Program participation standards marked in legislative format to reflect the change to LED lamps.

8. Tampa Electric is not aware of any disputed issues of material fact relative to the matters addressed in this petition.

WHEREFORE, Tampa Electric Company respectfully requests Commission approval of its proposed modifications to its existing Neighborhood Weatherization and Energy Education, Awareness and Agency Outreach DSM programs and cost recovery associated with the proposed modifications.

DATED this 29th day of June 2017.

Respectfully submitted,



JAMES D. BEASLEY
J. JEFFRY WAHLEN
Ausley McMullen
Post Office Box 391
Tallahassee, FL 32302
(850) 224-9115

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

EXHIBIT A

Program: Neighborhood Weatherization

Program Start Date: March 2008

Program Description

The Neighborhood Weatherization Program is designed to assist low income families in reducing their energy usage. The goal of the program is to provide and install a package of conservation measures at no cost to the customer. Another key component will be educating families and promoting energy conservation techniques to help customers control and reduce their energy usage.

Customer eligibility is confirmed through the utilization of census data to identify eligible customer geographic regions of low income customers or by referrals through direct customer contact, distributed literature and communication through key community contacts or local community assistance agencies which serve low income households. Local residents of these qualifying geographic regions will have the opportunity enroll for participation in the program at no cost.

Tampa Electric will deliver the following applicable measures.

- **Duct Sealing**
For qualified dwellings with a ducted central HVAC system, this will provide sealing of the ADS.
- **Ceiling Insulation**
For qualified dwellings where the existing ceiling insulation is below R-19, this will provide for an R-13 to be installed. Any home where roof pitch limits accessibility, a lower R-value may be installed.
- **CFLs**
This provides the resident with eight CFLs to replace incandescent bulbs with similar lumen output.
- **Water Heater Wrap**
This will furnish and install a water heater wrap for an electric water heater manufactured prior to 1996.
- **Hot Water Pipe Insulation**
This allows for the installation of hot water insulation on un-insulated pipes.
- **Water Heater Temperature Check and Adjustment**
This provides a temperature check of the water heater temperature setting and informs the customer of the possibility for turn-down adjustment.
- **Low Flow Faucet Aerator**
This allows for the installation of up to three low flow faucet aerators to reduce the amount of hot water used.
- **Low Flow Showerhead**
This allows for the installation of up to two low flow showerheads to reduce the amount of hot water used.
- **Wall Plate Thermometer**

This will provide for the installation of one wall plate thermometer per home to check the accuracy of the installed thermostat.

- **Refrigerator Coil Cleaning and Brush**
This will provide for the cleaning of the refrigerator coil. The brush will be provided to the customer for future cleaning.
- **HVAC Weather Stripping Kit**
This will provide for the installation of a weather stripping kit for window/wall HVAC units. The customer will receive or have installed up to two kits.
- **Air Filter Whistle**
This provides each homeowner with a filter whistle to help remind them to clean or change filter monthly.
- **Weatherization Measures**
This portion of the program will provide weather stripping, caulk and foam sealant which will be used to reduce or stop air infiltration around doors, windows, attic entries and where pipes enter the home. Reducing air infiltration is vital to saving energy and improving comfort.
- **Energy Savings Education Handout**
This provides each homeowner with the content and directions for installation for some of the measures within the kit. The handout also includes several no-cost energy conservation tips that provide an immediate payback.

Program Participation Standards

Program Standards to be submitted 30 days after Commission order approving DSM Plan.

Program Savings

Savings were obtained using a combination of ITRON data for specific kit measures and DOE2 building simulations to determine the composite savings for this program. The analysis yielded the following expected savings per customer participant:

Summer Demand:	0.241 kW
Winter Demand:	0.337 kW
Annual Energy:	1,222 kWh

Program Costs

The estimated administrative cost per participant is \$374. There are no rebates or incentives for this program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effectiveness techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

EXHIBIT B

Program: Neighborhood Weatherization

Program Start Date: March 2008

Program Description

The Neighborhood Weatherization Program is designed to assist low income families in reducing their energy usage. The goal of the program is to provide and install a package of conservation measures at no cost to the customer. Another key component will be educating families and promoting energy conservation techniques to help customers control and reduce their energy usage.

Customer eligibility is confirmed through the utilization of census data to identify eligible customer geographic regions of low income customers or by referrals through direct customer contact, distributed literature and communication through key community contacts or local community assistance agencies which serve low income households. Local residents of these qualifying geographic regions will have the opportunity enroll for participation in the program at no cost.

Tampa Electric will deliver the following applicable measures.

- **Duct Sealing**
For qualified dwellings with a ducted central HVAC system, this will provide sealing of the ADS.
- **Ceiling Insulation**
For qualified dwellings where the existing ceiling insulation is below R-19, this will provide for an R-13 to be installed. Any home where roof pitch limits accessibility, a lower R-value may be installed.
- **CFLs Light Emitting Diode (LED) Lamps**
This provides the resident with ~~eight CFLs~~ six LED lamps to replace incandescent bulbs with similar lumen output.
- **Water Heater Wrap**
This will furnish and install a water heater wrap for an electric water heater manufactured prior to 1996.
- **Hot Water Pipe Insulation**
This allows for the installation of hot water insulation on un-insulated pipes.
- **Water Heater Temperature Check and Adjustment**
This provides a temperature check of the water heater temperature setting and informs the customer of the possibility for turn-down adjustment.
- **Low Flow Faucet Aerator**
This allows for the installation of up to three low flow faucet aerators to reduce the amount of hot water used.
- **Low Flow Showerhead**
This allows for the installation of up to two low flow showerheads to reduce the amount of hot water used.
- **Wall Plate Thermometer**

This will provide for the installation of one wall plate thermometer per home to check the accuracy of the installed thermostat.

- **Refrigerator Coil Cleaning and Brush**
This will provide for the cleaning of the refrigerator coil. The brush will be provided to the customer for future cleaning.
- **HVAC Weather Stripping Kit**
This will provide for the installation of a weather stripping kit for window/wall HVAC units. The customer will receive or have installed up to two kits.
- **Air Filter Whistle**
This provides each homeowner with a filter whistle to help remind them to clean or change filter monthly.
- **Weatherization Measures**
This portion of the program will provide weather stripping, caulk and foam sealant which will be used to reduce or stop air infiltration around doors, windows, attic entries and where pipes enter the home. Reducing air infiltration is vital to saving energy and improving comfort.
- **Energy Savings Education Handout**
This provides each homeowner with the content and directions for installation for some of the measures within the kit. The handout also includes several no-cost energy conservation tips that provide an immediate payback.

Program Participation Standards

Program Standards to be submitted 30 days after Commission order approving DSM Plan.

Program Savings

Savings were obtained using a combination of ITRON data for specific kit measures and DOE2 building simulations to determine the composite savings for this program. The analysis yielded the following expected savings per customer participant:

Summer Demand:	0.2410.245 kW
Winter Demand:	0.3370.339 kW
Annual Energy:	1,2221.255 kWh

Program Costs

The estimated administrative cost per participant is \$~~374382~~. There are no rebates or incentives for this program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effectiveness techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: NEIGHBORHOOD WEATHERIZATION

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2015	630,869	210,290	5,000	2.4%	5,000
2016	640,735	213,578	5,750	5.0%	10,750
2017	650,702	216,901	6,250	7.8%	17,000
2018	660,594	220,198	6,750	10.8%	23,750
2019	670,381	223,460	7,000	13.8%	30,750
2020	680,041	226,680	7,000	16.7%	37,750
2021	689,544	229,848	7,000	19.5%	44,750
2022	698,908	232,969	7,000	22.2%	51,750
2023	708,128	236,043	7,000	24.9%	58,750
2024	717,339	239,113	7,000	27.5%	65,750

* Previous participation levels not included.

PROGRAM NAME: NEIGHBORHOOD WEATHERIZATION

AT THE METER							
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction	
2015	1,222	0.337	0.241	6.110	1.685	1.205	
2016	1,222	0.337	0.241	13.137	3.623	2.591	
2017	1,222	0.337	0.241	20.774	5.729	4.097	
2018	1,255	0.339	0.245	29.806	8.051	5.819	
2019	1,255	0.339	0.245	38.591	10.424	7.534	
2020	1,255	0.339	0.245	47.376	12.797	9.249	
2021	1,255	0.339	0.245	56.161	15.170	10.964	
2022	1,255	0.339	0.245	64.946	17.543	12.679	
2023	1,255	0.339	0.245	73.731	19.916	14.394	
2024	1,255	0.339	0.245	82.516	22.289	16.109	

PROGRAM NAME: NEIGHBORHOOD WEATHERIZATION

AT THE GENERATOR							
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction	
2015	1,295	0.359	0.257	6.477	1.796	1.285	
2016	1,295	0.359	0.257	13.925	3.862	2.762	
2017	1,295	0.359	0.257	22.020	6.107	4.367	
2018	1,330	0.361	0.261	31.595	8.583	6.203	
2019	1,330	0.361	0.261	40.907	11.112	8.031	
2020	1,330	0.361	0.261	50.219	13.642	9.859	
2021	1,330	0.361	0.261	59.531	16.171	11.687	
2022	1,330	0.361	0.261	68.843	18.701	13.516	
2023	1,330	0.361	0.261	78.155	21.231	15.344	
2024	1,330	0.361	0.261	87.467	23.760	17.172	

TOTAL RESOURCE COST TESTS
PROGRAM: Neighborhood Weatherization

PSC FORM CE 2.3
Page 1 of 1
June 22, 2017

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS	PARTICIPANT PROGRAM COSTS	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT BENEFITS	AVOIDED T & D BENEFITS	PROGRAM FUEL SAVINGS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2017	0	750	0	0	750	0	0	105	0	105	(645)	(645)
2018	0	829	0	0	829	0	185	351	0	536	(294)	(920)
2019	0	881	0	0	881	0	189	710	0	899	18	(904)
2020	0	902	0	0	902	0	193	1,013	0	1,206	304	(655)
2021	0	0	0	0	0	749	198	1,458	0	2,406	2,406	1,182
2022	0	0	0	0	0	770	203	1,383	0	2,356	2,356	2,863
2023	0	0	0	0	0	783	208	1,678	0	2,669	2,669	4,644
2024	0	0	0	0	0	797	213	1,123	0	2,132	2,132	5,974
2025	0	0	0	0	0	818	218	1,173	0	2,209	2,209	7,262
2026	0	0	0	0	0	842	223	1,871	0	2,937	2,937	8,863
2027	0	0	0	0	0	860	228	1,784	0	2,872	2,872	10,326
2028	0	0	0	0	0	886	234	1,997	0	3,116	3,116	11,810
2029	0	0	0	0	0	897	240	1,582	0	2,718	2,718	13,020
2030	0	0	0	0	0	922	245	1,904	0	3,072	3,072	14,298
2031	0	0	0	0	0	944	251	2,087	0	3,282	3,282	15,575
NOMINAL	0	3,362	0	0	3,362	9,267	3,028	20,219	0	32,514	29,152	
NPV:	0	3,032	0	0	3,032	5,087	1,846	11,674	0	18,607	15,575	
Discount Rate		0.06976			Benefit/Cost Ratio - [col (11)/col (6)]:		6.14					

PSC FORM CE 2.4
Page 1 of 1
June 22, 2017

PARTICIPANT COSTS AND BENEFITS
PROGRAM: Neighborhood Weatherization

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	UTILITY BENEFITS \$(000)	OTHER BENEFITS \$(000)	TOTAL EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	CUSTOMER OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2017	373	0	2,388	0	0	2,760	0	0	0	2,760	2,760
2018	1,134	0	2,579	0	0	3,712	0	0	0	3,712	6,231
2019	2,042	0	2,674	0	0	4,716	0	0	0	4,716	10,351
2020	2,978	0	2,674	0	0	5,652	0	0	0	5,652	14,969
2021	3,471	0	0	0	0	3,471	0	0	0	3,471	17,619
2022	3,534	0	0	0	0	3,534	0	0	0	3,534	20,142
2023	3,630	0	0	0	0	3,630	0	0	0	3,630	22,563
2024	3,727	0	0	0	0	3,727	0	0	0	3,727	24,888
2025	3,799	0	0	0	0	3,799	0	0	0	3,799	27,103
2026	3,864	0	0	0	0	3,864	0	0	0	3,864	29,209
2027	3,961	0	0	0	0	3,961	0	0	0	3,961	31,227
2028	4,029	0	0	0	0	4,029	0	0	0	4,029	33,146
2029	4,158	0	0	0	0	4,158	0	0	0	4,158	34,997
2030	4,236	0	0	0	0	4,236	0	0	0	4,236	36,761
2031	4,337	0	0	0	0	4,337	0	0	0	4,337	38,448
NOMINAL	49,273	0	10,314	0	0	59,587	0	0	0	59,587	
NPV:	29,129	0	9,319	0	0	38,448	0	0	0	38,448	
In service year of gen unit:			2021		#DIV/0!						

EXHIBIT C

Program: Energy Education, Awareness and Agency Outreach

Program Start Date: March 2010

Program Description

The Energy Education, Awareness and Agency Outreach Program is comprised of three distinct initiatives:

- 1) Public energy education
- 2) Energy awareness
- 3) Agency outreach

Energy Education and Awareness

This portion of the program is designed to establish opportunities for engaging groups of customers and students in energy-efficiency related discussions in an organized setting. Tampa Electric recognizes the importance of educating students and motivating customers through participation in its energy audits, and this program will provide the opportunity to accomplish both initiatives for large groups in one setting.

In order to create an awareness of this offering, the company will establish participation avenues through its Speakers' Bureau and Community Relations teams.

By working with local civic groups, churches, government sponsored public forums, homeowners associations, trade shows, rental property management groups, etc., Tampa Electric will establish informative presentations that help educate customers on no-cost practices they can implement to reduce their energy consumption, low-cost improvements to increase the efficiency of their homes and incentives available for making larger, long-term investments. This type of forum will allow for dialogue with customers in such a setting that many customers will simultaneously benefit from the discussion.

Additionally, this program will focus on opportunities to promote energy efficiency education through local school systems. Students will be educated on ways to become active participants in saving energy at home and at school through the use of theater, educational modules, videos or other learning tools that support Sunshine State Standards and are approved by school authorities.

Participants will be provided with an energy efficiency kit containing the following energy saving devices and supporting information appropriate for the audience.

- **CFLs**
This provides four CFLs to replace incandescent bulbs with similar lumen output.
- **Water Heater Temperature Check and Adjustment**
This provides a temperature check of the water heater temperature setting and informs the customer of the possibility for turn-down adjustment.
- **Low Flow Faucet Aerator**
This provides two low flow faucet aerators to reduce the amount of hot water used.
- **Wall Plate Thermometer**
This provides one wall plate thermometer to check the accuracy of the installed thermostat.
- **Air Filter Whistle**
This provides one filter whistle to help remind to clean or change filter monthly.
- **Energy Savings Education Handout**
This provides the content and directions for installation for all of the measures within the kit. The handout also includes several no-cost energy conservation tips that provide an immediate payback.

This portion of the program will also focus on providing opportunities to encourage the conservation of energy and for the promotion of energy efficiency through local school systems by partnering with high school's driver's education classes. This portion of the program will provide energy efficiency and electric vehicle training curriculum and educational materials, one charging station and the incremental cost of one electric vehicle at selected high schools.

Agency Outreach

This portion of the program will allow for delivery of energy efficiency kits that will help educate agency clients on practices that help to reduce energy consumption. The suggested practices will mirror the recommendations provided to customers who participate in a free energy audit.

Customer eligibility is confirmed through the utilization of census data to identify eligible customer geographic regions of low income customers or by referrals through direct customer contact, distributed literature and communication through key community contacts or local community assistance agencies which serve low income households.

As a means to encourage adoption of the recommendations, agency clients who are seeking energy-related assistance will be provided with the same energy efficiency kit above.

Program Participation Standards

Program Standards to be submitted 30 days after Commission order approving DSM Plan.

Program Savings

Savings were obtained using ITRON data. The analysis yielded the following expected savings per customer participant:

Summer Demand:	0.025 kW
Winter Demand:	0.046 kW
Annual Energy:	342 kWh

For the EV portion of this program, there are no projected Summer Demand, Winter Demand or Annual Energy savings.

Program Costs

The estimated administrative cost per participant is \$38. There are no rebates or incentives for this program.

The estimated administrative cost per participant for the EV portion of this program is \$15. There are no rebates or incentives for this portion of the program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effectiveness techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

EXHIBIT D

Program: Energy Education, Awareness and Agency Outreach

Program Start Date: March 2010

Program Description

The Energy Education, Awareness and Agency Outreach Program is comprised of three distinct initiatives:

- 1) Public energy education
- 2) Energy awareness
- 3) Agency outreach

Energy Education and Awareness

This portion of the program is designed to establish opportunities for engaging groups of customers and students in energy-efficiency related discussions in an organized setting. Tampa Electric recognizes the importance of educating students and motivating customers through participation in its energy audits, and this program will provide the opportunity to accomplish both initiatives for large groups in one setting.

In order to create an awareness of this offering, the company will establish participation avenues through its Speakers' Bureau and Community Relations teams.

By working with local civic groups, churches, government sponsored public forums, homeowners associations, trade shows, rental property management groups, etc., Tampa Electric will establish informative presentations that help educate customers on no-cost practices they can implement to reduce their energy consumption, low-cost improvements to increase the efficiency of their homes and incentives available for making larger, long-term investments. This type of forum will allow for dialogue with customers in such a setting that many customers will simultaneously benefit from the discussion.

Additionally, this program will focus on opportunities to promote energy efficiency education through local school systems. Students will be educated on ways to become active participants in saving energy at home and at school through the use of theater, educational modules, videos or other learning tools that support Sunshine State Standards and are approved by school authorities.

Participants will be provided with an energy efficiency kit containing the following energy saving devices and supporting information appropriate for the audience.

- **CFLs-Light Emitting Diode (LED) Lamps**
This provides four CFLs-LED lamps to replace incandescent bulbs with similar lumen output.
- **Water Heater Temperature Check and Adjustment**
This provides a temperature check of the water heater temperature setting and informs the customer of the possibility for turn-down adjustment.
- **Low Flow Faucet Aerator**
This provides two low flow faucet aerators to reduce the amount of hot water used.
- **Wall Plate Thermometer**
This provides one wall plate thermometer to check the accuracy of the installed thermostat.
- **Air Filter Whistle**
This provides one filter whistle to help remind to clean or change filter monthly.
- **Energy Savings Education Handout**
This provides the content and directions for installation for all of the measures within the kit. The handout also includes several no-cost energy conservation tips that provide an immediate payback.

This portion of the program will also focus on providing opportunities to encourage the conservation of petroleum fuels and promotion of energy efficiency through local school systems by partnering with high school's driver's education classes. This portion of the program will provide energy efficiency and electric vehicle training curriculum and educational materials, charging stations and electric vehicles at selected high schools.

Agency Outreach

This portion of the program will allow for delivery of energy efficiency kits that will help educate agency clients on practices that help to reduce energy consumption. The suggested practices will mirror the recommendations provided to customers who participate in a free energy audit.

Customer eligibility is confirmed through the utilization of census data to identify eligible customer geographic regions of low income customers or by referrals through direct customer contact, distributed literature and communication through key community contacts or local community assistance agencies which serve low income households.

As a means to encourage adoption of the recommendations, agency clients who are seeking energy-related assistance will be provided with the same energy efficiency kit above.

Program Participation Standards

Program Standards to be submitted 30 days after Commission order approving DSM Plan.

Program Savings

Savings were obtained using ITRON data. The analysis yielded the following expected savings per customer participant:

Summer Demand:	0.0250.027 kW
Winter Demand:	0.0460.049 kW
Annual Energy:	342.377 kWh

Program Costs

The estimated administrative cost per participant is \$~~3843~~. There are no rebates or incentives for this program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effectiveness techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: ENERGY EDUCATION, AWARENESS AND AGENCY OUTREACH

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2015	630,869	630,869	500	0.1%	500
2016	640,735	640,735	500	0.2%	1,000
2017	650,702	650,702	500	0.2%	1,500
2018	660,594	660,594	500	0.3%	2,000
2019	670,381	670,381	500	0.4%	2,500
2020	680,041	680,041	500	0.4%	3,000
2021	689,544	689,544	500	0.5%	3,500
2022	698,908	698,908	500	0.6%	4,000
2023	708,128	708,128	500	0.6%	4,500
2024	717,339	717,339	500	0.7%	5,000

* Previous participation levels not included.

PROGRAM NAME: ENERGY EDUCATION, AWARENESS AND AGENCY OUTREACH

AT THE METER									
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction	Total Annual GWh Reduction	Total Annual Summer mW Reduction
2015	342	0.046	0.025	0.025	0.171	0.023	0.013	0.342	0.025
2016	342	0.046	0.025	0.025	0.342	0.046	0.025	0.513	0.038
2017	342	0.046	0.025	0.025	0.513	0.069	0.038	0.754	0.054
2018	377	0.049	0.027	0.027	0.943	0.123	0.068	1.131	0.081
2019	377	0.049	0.027	0.027	1.320	0.172	0.095	1.508	0.108
2020	377	0.049	0.027	0.027	1.697	0.221	0.122	1.885	0.135
2021	377	0.049	0.027	0.027					
2022	377	0.049	0.027	0.027					
2023	377	0.049	0.027	0.027					
2024	377	0.049	0.027	0.027					

PROGRAM NAME: ENERGY EDUCATION, AWARENESS AND AGENCY OUTREACH

AT THE GENERATOR									
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction			
2015	363	0.049	0.027	0.181	0.025	0.013			
2016	363	0.049	0.027	0.363	0.049	0.027			
2017	363	0.049	0.027	0.544	0.074	0.040			
2018	400	0.052	0.029	0.799	0.104	0.058			
2019	400	0.052	0.029	0.999	0.131	0.072			
2020	400	0.052	0.029	1.199	0.157	0.086			
2021	400	0.052	0.029	1.399	0.183	0.101			
2022	400	0.052	0.029	1.598	0.209	0.115			
2023	400	0.052	0.029	1.798	0.235	0.130			
2024	400	0.052	0.029	1.998	0.261	0.144			

PSC FORM CE 1.1
 PAGE 1 OF 1
 RUN DATE: June 23, 2017

INPUT DATA - PART 1
PROGRAM TITLE: Energy Education, Awareness and Agency Outreach

PROGRAM DEMAND SAVINGS & LINE LOSSES					
I. (1) CUSTOMER KW REDUCTION AT THE METER	0.049 KW /CUST				2017
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	0.034 KW GEN/CUST				2021
I. (3) KW LINE LOSS PERCENTAGE	7.30 %				2018
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	399 KWH/CUST/YR				682.22 \$/KW
I. (5) KWH LINE LOSS PERCENTAGE	5.60 %				37.16 \$/KW
I. (6) GROUP LINE LOSS MULTIPLIER	1				69.64 \$/KW
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR				2.40 %
I. (8)* CUSTOMER KWH REDUCTION AT METER	377 KWH/CUST/YR				12.27 \$/KW/YR
					2.40 %
					2.24 \$/KW/YR
					8.54 \$/KW/YR
					2.40 %
					0.198 CENTS/KWH
					2.40 %
					13.20 %
					3.95 CENTS/KWH
					3.69 %
					0.00 \$/KW/YR
					0.00 %
ECONOMIC LIFE & K FACTORS					
II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	15 YEARS				
II. (2) GENERATOR ECONOMIC LIFE	25 YEARS				
II. (3) T & D ECONOMIC LIFE	25 YEARS				
II. (4) K FACTOR FOR GENERATION	1.4181				
II. (5) K FACTOR FOR T & D	1.4181				
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1				
UTILITY & CUSTOMER COSTS					
III. (1) UTILITY NONRECURRING COST PER CUSTOMER	43.00 \$/CUST				
III. (2) UTILITY RECURRING COST PER CUSTOMER	0.00 \$/CUST/YR				
III. (3) UTILITY COST ESCALATION RATE	2.40 %				
III. (4) CUSTOMER EQUIPMENT COST	0.00 \$/CUST				
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.30 %				
III. (6) CUSTOMER O & M COST	0.00 \$/CUST/YR				
III. (7) CUSTOMER O & M ESCALATION RATE	2.30 %				
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00 \$/CUST				
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0.00 %				
III. (10)* INCREASED SUPPLY COSTS	0.00 \$/CUST/YR				
III. (11)* SUPPLY COSTS ESCALATION RATE	0.00 %				
III. (12)* UTILITY DISCOUNT RATE	0.0688				
III. (13)* UTILITY AFUDC RATE	0.0646				
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00 \$/CUST				
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR				
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0.00 %				

AVOIDED GENERATOR, TRANS. & DIST COSTS					
IV. (1) BASE YEAR					2017
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT					2021
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D					2018
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST					682.22 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST					37.16 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST					69.64 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE					2.40 %
IV. (8) GENERATOR FIXED O & M COST					12.27 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE					2.40 %
IV. (10) TRANSMISSION FIXED O & M COST					2.24 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST					8.54 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE					2.40 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS					0.198 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE					2.40 %
IV. (15) GENERATOR CAPACITY FACTOR					13.20 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST					3.95 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE					3.69 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW					0.00 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE					0.00 %
NON-FUEL ENERGY AND DEMAND CHARGES					
V. (1) NON-FUEL COST IN CUSTOMER BILL					6.046 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE					1.00 %
V. (3) CUSTOMER DEMAND CHARGE PER KW					0.000 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE					1.00 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL					1.00

CALCULATED BENEFITS AND COSTS	
(1)* TRC TEST - BENEFIT/COST RATIO	4.01
(2)* PARTICIPANT NET BENEFITS (NPV)	651
(3)* RIM TEST - BENEFIT/COST RATIO	0.69

PSC FORM CE 2.3
 Page 1 of 1
 June 23, 2017

TOTAL RESOURCE COST TESTS
 PROGRAM: Energy Education, Awareness and Agency Outreach

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS	PARTICIPANT PROGRAM COSTS	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT BENEFITS	AVOIDED T & D BENEFITS	PROGRAM FUEL SAVINGS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2017	0	22	0	0	22	0	0	3	0	3	3	(19)
2018	0	22	0	0	22	0	2	8	0	10	10	(12)
2019	0	23	0	0	23	0	2	16	0	18	18	(4)
2020	0	23	0	0	23	0	2	23	0	25	25	(33)
2021	0	0	0	0	0	6	2	32	0	41	41	(2)
2022	0	0	0	0	0	7	2	31	0	39	39	27
2023	0	0	0	0	0	7	2	37	0	46	46	58
2024	0	0	0	0	0	7	2	25	0	34	34	79
2025	0	0	0	0	0	7	2	26	0	35	35	99
2026	0	0	0	0	0	7	2	42	0	51	51	127
2027	0	0	0	0	0	7	2	40	0	49	49	152
2028	0	0	0	0	0	8	2	44	0	54	54	178
2029	0	0	0	0	0	8	2	35	0	45	45	199
2030	0	0	0	0	0	8	3	42	0	53	53	221
2031	0	0	0	0	0	8	3	46	0	57	57	243
NOMINAL	0	89	0	0	89	80	31	451	0	562	472	
NPV:	0	81	0	0	81	44	19	261	0	323	243	
Discount Rate		0.06976			Benefit/Cost Ratio - [col (11)/col (6)]:		4.01					

PSC FORM CE 2.4
 Page 1 of 1
 June 23, 2017

PARTICIPANT COSTS AND BENEFITS
 PROGRAM: Energy Education, Awareness and Agency Outreach

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	UTILITY OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2017	9	0	0	0	9	0	0	0	0	9	9
2018	27	0	0	0	27	0	0	0	0	27	34
2019	46	0	0	0	46	0	0	0	0	46	74
2020	67	0	0	0	67	0	0	0	0	67	129
2021	77	0	0	0	77	0	0	0	0	77	188
2022	79	0	0	0	79	0	0	0	0	79	244
2023	81	0	0	0	81	0	0	0	0	81	298
2024	83	0	0	0	83	0	0	0	0	83	350
2025	85	0	0	0	85	0	0	0	0	85	399
2026	86	0	0	0	86	0	0	0	0	86	446
2027	88	0	0	0	88	0	0	0	0	88	491
2028	90	0	0	0	90	0	0	0	0	90	533
2029	93	0	0	0	93	0	0	0	0	93	574
2030	94	0	0	0	94	0	0	0	0	94	614
2031	96	0	0	0	96	0	0	0	0	96	651
NOMINAL	1,100	0	0	0	1,100	0	0	0	0	1,100	
NPV:	651	0	0	0	651	0	0	0	0	651	

In service year of gen unit: 2021 #DIV/0!

EXHIBIT E

Program: Neighborhood Weatherization

Program Participation Standards

1. Participation is available to any qualified residential customer located within Tampa Electric's service area. Census data will be utilized to identify qualified residential blocks of low-income customers.
2. Homes that have previously participated in the company's weatherization program are not eligible.
3. Tampa Electric will deliver the following applicable measures to participating customers at no cost.
 - Duct Sealing
 - ADS must be accessible for sealing and repair. The ADS is defined as the air handler, air ducts, return plenums, supply plenums and any connecting structure.
 - Residences must have a working central ducted HVAC system with electric heating or air conditioning. Residences with non-electric heating are eligible. Conditions precluding participation will be initially identified.
 - Tampa Electric will appoint a participating HVAC contractor to seal and repair existing ADS. HVAC contractor will seal and repair all accessible components of the ADS in the residence.
 - This measure is managed through a negotiated agreement between Tampa Electric and participating contractors for typical duct repairs.
 - Typical duct repairs are defined as labor and materials necessary to seal ADS to measure standards and do not exceed replacement of one continuous flex duct and/or one sheet of duct board.
 - Sealing and repairs to ADS will use mastic techniques (adhesive with fibers embedded or adhesive with fabric reinforced tape). Air handler panels/openings will be sealed with tape or other approved materials. If ducts are replaced, mastic must be used to seal all joints, connections and seams in the ADS.
 - Ceiling Insulation
 - An additional R-13 of ceiling insulation where the existing insulation is less than R-19. Any home where roof pitch limits accessibility, a lower R-value may be installed. Homes must have electric whole house air conditioning or heating.
 - Energy Efficiency Kit which will contain:
 - ~~Eight compact fluorescent~~ Six light emitting diode (LED) lamps to replace incandescent bulbs with similar lumens output.
 - The installation of up to three low flow faucet aerators per household. Each aerator will be rated at 1 gallon per minute ("GPM").
 - The installation of up to two low flow showerheads per household. The showerhead will be rated at 1.5 GPM.

- A brush for cleaning the refrigerator coil. The brush will be left at the residence and the customer will be educated on proper cleaning techniques.
 - The installation of a water heater wrap for an electric water heater manufactured prior to 1996.
 - A temperature check and adjustment for water heaters.
 - The installation of one switch cover wall plate thermometer will be provided per home.
 - The installation of a maximum of two HVAC weather stripping kits where there are only wall/window air conditioning units in use.
 - For central HVAC units, a filter whistle will be provided to help remind the resident to clean or change filter monthly.
 - The installation of weather stripping, caulk and foam sealant to reduce or stop air infiltration around doors, windows, attic entries and where pipes enter the home.
4. Each customer will only be eligible for one Energy Efficiency Kit from one of the following programs one time each year.
- Energy Education, Awareness and Agency Outreach.
 - Neighborhood Weatherization.
5. No payment shall be made by Tampa Electric until:
- Contractor submits a complete and correct invoice to Tampa Electric.
 - Installation has passed Tampa Electric's verification process.
6. Tampa Electric will randomly perform field verifications on a minimum of 10 percent of the participating residences. Work orders not selected for field verification will have an office verification to validate information.
7. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

EXHIBIT F

Program: Energy Education, Awareness and Agency Outreach

Program Participation Standards

1. Participation is available to schools, civic groups, churches, government sponsored public events, homeowner associations, trade shows and professional associations. Energy education and awareness presentations will be made. For qualifying agency outreach customers, a participating agency determines the customer's eligibility based on census data and the same standards used to provide other energy assistance.
2. Each presentation will include information that directly relates to recommendations currently provided with Tampa Electric's Energy Audits.
3. Participating energy-related assistance agencies must be authorized by Tampa Electric to deliver the applicable portion of the program.
4. Residential customers located within Tampa Electric's service area that participates in the energy education and awareness presentation will be provided with an energy efficiency kit at no cost.
5. Qualified residential low income customers referred through an approved agency will be provided with an energy efficiency kit at no cost along with being offered a walk-through energy audit.

Each kit will contain:

- Four ~~compact fluorescent~~ light emitting diode (LED) lamps to replace incandescent lamps with similar lumen outputs.
 - Two low-flow faucet aerators.
 - An air filter whistle to remind residents to clean or change filter monthly.
 - A hot water temperature card to check the water heaters temperature setting for opportunity for turn down.
 - A wall plate thermometer to check the accuracy of their existing thermostat setting.
 - No-cost energy efficiency recommendations that can be immediately adopted.
6. Each Tampa Electric customer will only be eligible for one energy efficiency kit from one of the following programs one time each year.
 - Energy Education, Awareness and Agency Outreach.
 - Neighborhood Weatherization.
 7. To be eligible for participation in the energy education electric vehicle driver's education portion of the program, the high school must meet all the following criteria:
 - Complete the application

- Agree that the electric vehicle that is incrementally funded will be used solely for the driver's education program
 - Agree that the school is responsible for the maintenance, operations and insurance of vehicles and the energy used to charge the vehicles.
 - Offer driver's education program curriculum during each semester or quarter the school is in session.
 - Agree to allow Tampa Electric to install or have a charging station installed on school premises and permit access to charging equipment for periodic inspections and maintenance by Tampa Electric or its designated contractor.
 - Agree to allow Tampa Electric to install a recording meter or individual sub-meters on the charging equipment.
 - Make space available for an energy education kiosk for energy efficiency and petroleum fuels conservation material.
 - Make time available to preview this program to other schools that may participate in the program.
8. Students that solely participate in the energy education electric vehicle driver's education portion of the program are not eligible to receive the energy efficiency kit.
9. Tampa Electric will survey 90 percent of the students that participate in the energy education electric vehicle driver's education portion of the program for verification and validation.
10. Tampa Electric will survey 10 percent of the participating customers for verification and validation.
11. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-up Projection Filings.