



Application to Commit
Energy Efficiency/Peak Demand
Reduction Programs
(Mercantile Customers Only)

Case No.: 14-0243-EL-EEC

Mercantile Customer: Family Dollar, Inc.

Electric Utility: The Cleveland Electric Illuminating Company

Program Title or
Description: Energy Efficiency Projects

Rule 4901:1-39-05(F), Ohio Administrative Code (O.A.C.), permits a mercantile customer to file, either individually or jointly with an electric utility, an application to commit the customer's existing demand reduction, demand response, and energy efficiency programs for integration with the electric utility's programs. The following application form is to be used by mercantile customers, either individually or jointly with their electric utility, to apply for commitment of such programs in accordance with the Commission's pilot program established in Case No. 10-834-EL-POR

Completed applications requesting the cash rebate reasonable arrangement option in lieu of an exemption from the electric utility's energy efficiency and demand reduction (EEDR) rider will be automatically approved on the sixty-first calendar day after filing, unless the Commission, or an attorney examiner, suspends or denies the application prior to that time. Completed applications requesting the exemption from the EEDR rider for a period of up to 12 months will also qualify for the 60-day automatic approval. However, all applications requesting an exemption from the EEDR rider for longer than 12 months must provide additional information, as described within the Historical Mercantile Annual Report Template, that demonstrates additional energy savings and the continuance of the Customer's energy efficiency program. This information must be provided to the Commission at least 61 days prior to the termination of the initial 12 month exemption period to prevent interruptions in the exemption period.

Complete a separate application for each customer program. Projects undertaken by a customer as a single program at a single location or at various locations within the same service territory should be submitted together as a single program filing, when possible.

Check all boxes that are applicable to your program. For each box checked, be sure to complete all subparts of the question, and provide all requested additional information. Submittal of altered or incomplete applications may result in a suspension of the automatic approval process or denial of the application.

Any confidential or trade secret information may be submitted to Staff on disc or via email at ee-pdr@puc.state.oh.us.

Section 1: Mercantile Customer Information

Name: Family Dollar, Inc.

Principal address: 10301 Monroe Rd. Matthews, NC 28105

Address of facility for which this energy efficiency program applies: 5544 Turney Rd.
Garfield Heights, OH 44125

Name and telephone number for responses to questions: Johnathan Thigpen, 704-708-2996

Electricity use by the customer (check the box(es) that apply):

- ☐ The customer uses more than seven hundred thousand kilowatt hours per year at the above facility. (Please attach documentation.)
- ☒ The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.)

Section 2: Application Information

A) The customer is filing this application (choose which applies):

- ☐ Individually, without electric utility participation.
- ☒ Jointly with the electric utility.

B) The electric utility is: The Cleveland Electric Illuminating Company

C) The customer is offering to commit (check any that apply):

- ☐ Energy savings from the customer's energy efficiency program. (Complete Sections 3, 5, 6, and 7.)
- ☐ Capacity savings from the customer's demand response/demand reduction program. (Complete Sections 4, 5, 6, and 7.)
- ☒ Both the energy savings and the capacity savings from the customer's energy efficiency program. (Complete all sections of the Application.)

Section 3: Energy Efficiency Programs

A) The customer's energy efficiency program involves (check those that apply):

☐ Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, and the date on which the customer would have replaced such equipment if it had not been replaced early. Please include a brief explanation for how the customer determined this future replacement date (or, if not known, please explain why this is not known)). **If Checked, Please see Exhibit 1 and Exhibit 2**

☐ Installation of new equipment to replace failed equipment which has no useful life remaining. The customer installed new equipment on the following date(s): _____.

☒ Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s):

07/04/2013.

☐ Behavioral or operational improvement.

B) Energy savings achieved/to be achieved by the energy efficiency program:

- 1) If you checked the box indicating that the project involves the early replacement of fully functioning equipment replaced with new equipment, then calculate the annual savings [(kWh used by the original equipment) - (kWh used by new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: _____ kWh

- 2) If you checked the box indicating that the customer installed new equipment to replace failed equipment which had no useful life remaining, then calculate the annual savings [(kWh used by new standard equipment) - (kWh used by the optional higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: _____ kWh

Please describe any less efficient new equipment that was rejected in favor of the more efficient new equipment. **Please see Exhibit 1 if applicable**

- 3) If you checked the box indicating that the project involves equipment for new construction or facility expansion, then calculate the annual savings [(kWh used by standard new equipment) - (kWh used by optional higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: 52307 kWh

Please describe the less efficient new equipment that was rejected in favor of the more efficient new equipment. **Please see Exhibit 1 if applicable**

- 4) If you checked the box indicating that the project involves behavioral or operational improvements, provide a description of how the annual savings were determined.

Annual savings: _____ kWh

Section 4: Demand Reduction/Demand Response Programs

A) The customer's program involves (check the one that applies):

- ☐ This project does not include peak demand reduction savings.
- ☒ Coincident peak-demand savings from the customer's energy efficiency program.
- ☐ Actual peak-demand reduction. (Attach a description and documentation of the peak-demand reduction.)
- ☐ Potential peak-demand reduction (check the one that applies):
 - ☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a tariff of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.
 - ☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a program that is equivalent to an RTO program, which has been approved by the Public Utilities Commission of Ohio.

B) On what date did the customer initiate its demand reduction program?

See Exhibit A

C) What is the peak demand reduction achieved or capable of being achieved (show calculations through which this was determined):

9 kW

**Section 5: Request for Cash Rebate Reasonable
Arrangement, Exemption from Rider, or Commitment Payment**

Under this section, check all boxes that apply and fill in all corresponding blanks.

A) The customer is applying for:

- ☒ A cash rebate reasonable arrangement.
- ☐ An exemption from the energy efficiency cost recovery mechanism implemented by the electric utility.
- ☐ Commitment payment

B) The value of the option that the customer is seeking is:

A cash rebate reasonable arrangement.

- ☒ A cash rebate of \$1961. (Rebate shall not exceed 50% project cost. Attach documentation showing the methodology used to determine the cash rebate value and calculations showing how this payment amount was determined.)

An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider.

- ☐ An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for ____ months (not to exceed 24 months). (Attach calculations showing how this time period was determined.)
- ☐ Ongoing exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for an initial period of 24 months because this program is part of the customer's ongoing efficiency program. (Attach documentation that establishes the ongoing nature of the program.) In order to continue the exemption beyond the initial 12 month period, the customer will need to complete, and file within this application, the Historical Mercantile Annual Report

Template to verify the projects energy savings are persistent.

- ☐ A commitment payment valued at no more than \$_____. (Attach documentation and calculations showing how this payment amount was determined.)

Section 6: Cost Effectiveness

The program is cost effective because it has a benefit/cost ratio greater than 1 using the (choose which applies):

- ☐ Total Resource Cost (TRC) Test. The calculated TRC value is: _____(Continue to Subsection 1, then skip Subsection 2)
- ☒ Utility Cost Test (UCT) . The calculated UCT value is: **See Exhibit 3** (Skip to Subsection 2.)

Subsection 1: TRC Test Used (please fill in all blanks).

The TRC value of the program is calculated by dividing the value of our avoided supply costs (generation capacity, energy, and any transmission or distribution) by the sum of our program overhead and installation costs and any incremental measure costs paid by either the customer or the electric utility.

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The incremental measure costs were _____.

Subsection 2: UCT Used (please fill in all blanks).

We calculated the UCT value of our program by dividing the value of our avoided supply costs (capacity and energy) by the costs to our electric utility (including administrative costs and incentives paid or rider exemption costs) to obtain our commitment.

Our avoided supply costs were **See Exhibit 3**

The utility's program costs were **See Exhibit 3**

The utility's incentive costs/rebate costs were **See Exhibit 3**

Section 7: Additional Information

Please attach the following supporting documentation to this application:

- Narrative description of the program including, but not limited to, make, model, and year of any installed and replaced equipment.
- A copy of the formal declaration or agreement that commits the program or measure to the electric utility, including:
 - 1) any confidentiality requirements associated with the agreement;
 - 2) a description of any consequences of noncompliance with the terms of the commitment;
 - 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;
 - 4) permission by the customer to the electric utility and Commission staff and consultants to measure and verify energy savings and/or peak-demand reductions resulting from your program; and,
 - 5) a commitment by the customer to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.
- A description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results. Additionally, identify and explain all deviations from any program measurement and verification guidelines that may be published by the Commission.

Ohio | Public Utilities Commission

Application to Commit
Energy Efficiency/Peak Demand
Reduction Programs
(Merchantile Customers Only)

Case No.: 14-0243-EL-EEC

State of OH :

Johnathan Thigpen, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

Family Dollar, Inc.

[insert customer or EDU company name and any applicable name(s) doing business as]

2. I have personally examined all the information contained in the foregoing application, including any exhibits and attachments. Based upon my examination and inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete.


Signature of Affiant & Title

Sworn and subscribed before me this 20th day of February, 2014 Month/Year


Signature of official administering oath

Georgina Maria Aguilera
Print Name and Title Notary Public

My commission expires on July 7, 2015



Customer Legal Entity Name: Family Dollar Inc
Site Address: Family Dollar #10523
Principal Address: 5544 Turney Rd.

Project No.	Project Name	Narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment:	Description of methodologies, protocols and practices used in measuring and verifying project results	What date would you have replaced your equipment if you had not replaced it early? Also, please explain briefly how you determined this future replacement date.	Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment.
1	Family Dollar #10523	N/A - new construction	N/A	N/A	32W T8 lamps

Docket No. 14-0243
Site: 5544 Turney Rd.

Exhibit 2

Customer Legal Entity Name: Family Dollar Inc
Site Address: Family Dollar #10523
Principal Address: 5544 Turney Rd.

		Unadjusted Usage, kwh (A)	Weather Adjusted Usage, kwh (B)	Weather Adjusted Usage with Energy Efficiency Addbacks, kwh (c) <i>Note 1</i>						
2012		121,001	121,001	121,001						
Average		121,001	121,001	121,001						
Project Number	Project Name	In-Service Date	Project Cost \$	50% of Project Cost \$	KWh Saved/Year (D) counting towards utility compliance	KWh Saved/Year (E) eligible for incentive	Utility Peak Demand Reduction Contribution, KW (F)	Prescriptive Rebate Amount (G) \$	Eligible Rebate Amount (H) \$ <i>Note 2</i>	Commitment Payment \$
1	Family Dollar #10523	07/04/2013	\$7,383	\$3,692	52,307	52,307	9	\$2,615	\$1,961	
					-	-	-			
					-	-	-			
					-	-	-			
					-	-	-			
					-	-	-			
					-	-	-			
Total			\$7,383		52,307	52,307	9	\$2,615	\$1,961	\$0

Docket No. 14-0243
Site: 5544 Turney Rd.

Notes
(1) Customer's usage is adjusted to account for the effects of the energy efficiency programs included in this application. When applicable, such adjustments are prorated to the in-service date to account for partial year savings.
(2) The eligible rebate amount is based upon 75% of the rebates offered by the FirstEnergy Commercial and Industrial Energy Efficiency programs or 75% of \$0.08/kWh for custom programs for all energy savings eligible for a cash rebate as defined in the PUCO order in Case NO.10-834-EL-EEC dated 9/15/2010, not to exceed the lesser of 50% of the project cost or \$250,000 per project. The rebate also cannot exceed \$500,000 per customer per year, per utility service territory.

Exhibit 3 Utility Cost Test

UCT = Utility Avoided Costs / Utility Costs

Project	Total Annual Savings, MWh (A)	Utility Avoided Cost \$/MWh (B)	Utility Avoided Cost \$ (C)	Utility Cost \$ (D)	Cash Rebate \$ (E)	Administrator Variable Fee \$ (F)	Total Utility Cost \$ (G)	UCT (H)
1	52	\$ 308	\$ 16,125	\$ 4,050	\$1,961	\$523	\$ 6,534	2.5
Total	52	\$ 308	16,125	4,050	\$1,961	\$523	6,534	2.5

Notes

- (A) From Exhibit 2, = kWh saved / 1000
- (B) This value represents avoided energy costs (wholesale energy prices) from the Department of Energy, Energy Information Administration's 2009 Annual Energy Outlook (AEO) low oil prices case. The AEO represents a national average energy price, so for a better representation of the energy price that Ohio customers would see, a Cinergy Hub equivalent price was derived by applying a ratio based on three years of historic national average and Cinergy Hub prices. This value is consistent with avoided cost assumptions used in EE&PDR Program Portfolio and Initial Benchmark Report, filed Dec 15, 2009 (See Section 8.1, paragraph a).
- (C) = (A) * (B)
- (D) Represents the utility's costs incurred for self-directed mercantile applications for applications filed and applications in progress. Includes incremental costs of legal fees, fixed administrative expenses, etc.
- (E) This is the amount of the cash rebate paid to the customer for this project.
- (F) Based on approximate Administrator's variable compensation for purposes of calculating the UCT, actual compensation may be less.
- (G) = (D) + (E) + (F)
- (H) = (C) / (G)

Family Dollar Inc ~ Family Dollar #10523
Docket No. 14-0243

Site: 5544 Turney Rd.

Project Estimated Annual Savings Summary

Lighting

Estimated Annual kWh Savings	52,307
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Total Change in Connected Load	9.14
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Annual Estimated Cost Savings	\$5,230.70
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Annual Operating Hours	5,110
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Interior Lighting Incentive @ \$0.05/kWh (excluding retrofit CFLs, sensors, or LED exit signs)	\$2,615.35
--	------------

Exterior Lighting Incentive @ \$0.05/kWh (excluding retrofit CFLs, sensors, or LED exit signs)	\$0.00
--	--------

Total retrofit CFL Incentive @ \$1/screw-in CFL lamp; \$15/hard-wired CFL lamp (includes all retrofit CFLs, both interior and exterior)	\$0.00
---	--------

Total retrofit LED Exit Incentive @ \$10/exit sign	\$0.00
--	--------

Total Lighting Controls Incentive @ \$25/occupancy sensor and \$25/daylight sensor (includes all Lighting Controls, both interior and exterior)	\$0.00
---	--------

Total Calculated Incentive	\$2,615.35
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Total Fixture Quantity excluding retrofit CFLs and LED Exit Signs	136
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Total Lamp Quantity for retrofit Screw-In CFLs	0
--	---

Total Lamp Quantity for retrofit Hard-Wired CFLs	0
--	---

Total Fixture Quantity for retrofit LED Exit Signs	0
--	---

Total Quantity for Occupancy Sensors	0
--------------------------------------	---

Total Quantity for Daylight Sensors	0
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Please briefly describe how you estimated your coincidence factor (CF) and applicant equivalent full-load hours (EFLH) for facility type "Other" indicated on the Lighting Form tab

Demand Savings (For Internal Use Only)	10.78
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Lighting Form

Lighting Inventory Form

Applicant Name:

Exhibit Name:

Linking These Issues

Instructions: Please use one line for each fixture type in a room or area.

The total of Columns 5, the quantiles of CBI, and exit ratios in Column M, and the quantiles of sensors in Column R, will be used to calculate your incentive on the NonStudentT1 tabulation form.

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[illegible]

Lighting Form

[illegible]

FEATURES & SPECIFICATIONS

INTENDED USE — The industry's next generation in linear direct fluorescent products. This new compact, low-profile design offers our customers unique product features which improve the overall installation process and appearance while reducing labor cost, making it the most versatile solution for commercial, retail, manufacturing, warehouse, and cove and display applications.

CONSTRUCTION — Compact designed channel and cover are formed from code-gauge cold-rolled steel. Innovative T8 two-lamp back plate offers compact design and additional socket protection. Locking lamp holder tracks bolsters strength of the overall strip construction while creating improved lamp stability. Design includes T8 socket, features rotating collar and enclosed contacts. Improved easy "snap n' lock" end plates allow for quick attachment.

Designed to accommodate a wide variety of T8 lamp lengths. Channel offers the gripper back feature which strengthens the overall construction and allows for the use of the new Z spring hanger (see back). Newly designed, patent-pending channel cover offers a secure fit design, allowing for easy access and quick attachment without pinching wires.

Finish: High-gloss, baked white enamel finish (white standard). Five-stage iron-phosphate pretreatment ensures superior paint adhesion and rust resistance. Other channel paint finish options: black (MB), smoke gray (SMG) and galvanized (GALV).

OPTICS — Reflector options include solid or apertured designs in both symmetric and asymmetric configurations. Consult factory for special-apertured versions.

ELECTRICAL — Thermally protected, resetting, Class P, HPF, non-PCB, UL listed. Suitable for damp locations. AWN, TFN or THHN wire used throughout, rated for required temperatures.

INSTALLATION — Patented-pending "three-point" row connector locks channel together for straighter and faster row mounting; included as standard. Ideal for surface-mount or suspended.

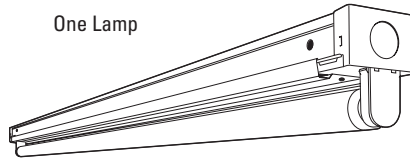
LISTINGS — UL Listed, CUL Listed or CSA Certified to Canadian Standards. Listed for 25° C ambient temperature.

WARRANTY — Guaranteed for one year against mechanical defects in manufacture.

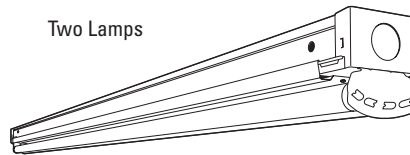
Catalog Number	
Notes	Type



Compact T8 Striplight

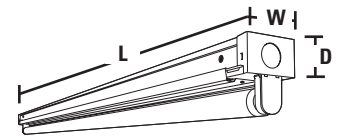


One Lamp



Two Lamps

Linear Lamps
1 or 2 Lamps



Specifications

Length:	18 (45.7), 24 (61.0)
	36 (91.4), 48 (121.9)
	72 (182.9) or 96 (243.8)
Width:	2-1/8 (5.4)
Depth:	1-1/2 (3.8)

All dimensions are inches (centimeters).

ORDERING INFORMATION

For shortest lead times, configure product using **standard options (shown in bold)**.

Example: Z 1 32 MVOLT GEB10IS

Series	Number of lamps	Lamp type	Voltage	Options
Z Compact strip¹	1 2 Not included	17 17W T8 (24") 25 25W T8 (36") 32 32W T8 (48")	120 277 347 MVOLT Others available	GEB10IS T8 electronic ballast, ≤ 10% THD, instant start (T8 only) GEB10RS T8 electronic ballast, ≤ 10% THD, rapid start BILP High-efficiency .78 bf (low) GLR Internal fast-blow fuse (add X for external) ² GMF Internal slow-blow fuse (add X for external) ² PLR Plug in wiring, specify number of branch circuits and hot wires (A-black, B-Red, C-Blue, AB or AC) TILW Tandem in-line wiring EL55 Emergency battery pack (nominal 390-700 lumens); consult factory for additional battery packs ^{2,3,4} EL65 Emergency battery pack (nominal 725-1325 lumens) ^{2,3,4} CSA CSA Certified NOM NOM Certified
<p>For tandem double-length unit, add prefix T. Example: TZ</p>				
<p>Accessories Order as separate catalog numbers.</p>				
SQ_	Swivel-stem hanger (specify length in 2" increments)			
ZSPRG	Tong and T-grid hanger			
Z8SMR48	Symmetric reflector, 4' white			
Z8ASR48	Asymmetric reflector, 4' white			
Z8SMR36	Symmetric reflector, 3' white			
Z8ASR36	Asymmetric reflector, 3' white			
Z8SMR24	Symmetric reflector, 2' white			
Z8ASR24	Asymmetric reflector, 2' white			
WGZ48	4' wireguard, white			
WGZ8SMR48	4' wireguard, white, for symmetric reflector			
WGZ8ASR48	4' wireguard, white, for asymmetric reflector			

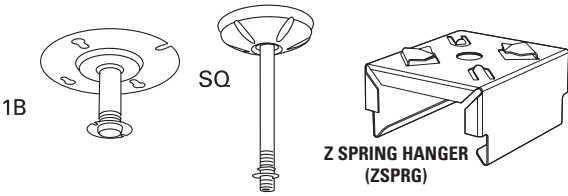
NOTES:

- Order two 48" for 8' fixtures.
- Specify voltage (available 120/277V).
- Not available with CSA Certified.
- Available with 4' and 8' lengths only.

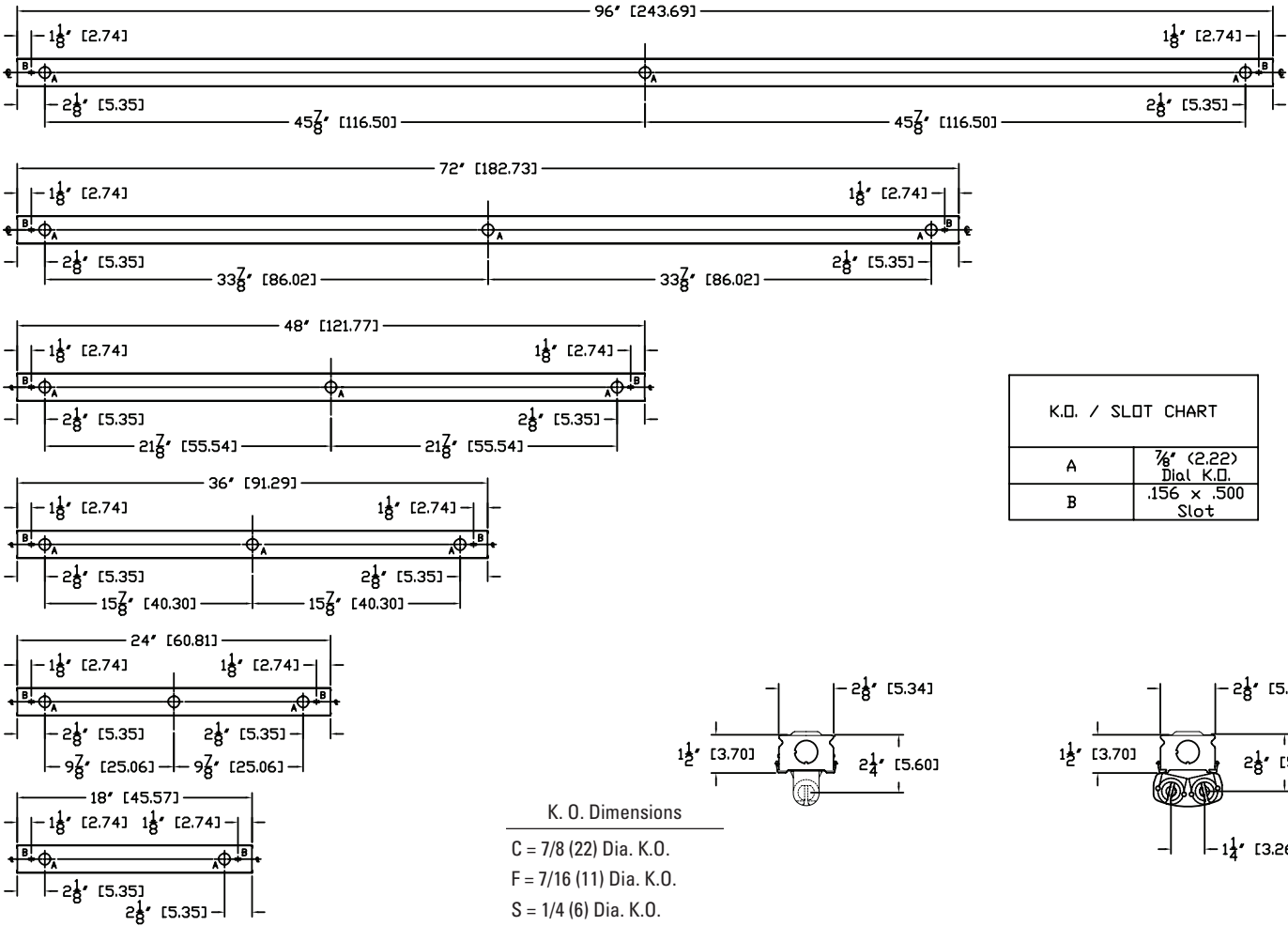
Z Compact Striplight

MOUNTING DATA

For unit or row installation, surface or stem mounting.
Unit installation — Minimum of two hangers required.
Row installation — One hanger per channel plus one per row required.



DIMENSIONS



PHOTOMETRICS

Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%. Lamp configurations shown are typical. Full photometric data on these and other configurations available upon request.

TEST NO: LTL17128
LUMINAIRE CATALOG NO.: Z 1 32 MVOLT GEB10IS
LUMENS PER LAMP: 2800

TEST NO: LTL17130
LUMINAIRE CATALOG NO.: Z 2 32 MVOLT GEB10IS
LUMENS PER LAMP: 2800

		Coefficients of Utilization					
		20%		70%		50%	
pf		50%	30%	10%	50%	30%	10%
pc		107	107	107	102	102	92
pw		87	82	77	83	78	74
1		74	66	60	70	63	57
2		64	55	48	61	53	46
3		56	47	40	53	45	38
4		49	40	33	47	39	32
5		44	35	29	42	34	28
6		40	31	25	38	30	24
7		36	28	22	34	27	21
8		33	25	19	31	24	19
9		30	22	17	29	22	18
10		30	22	17	29	22	18

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0° - 30°	356.4	12.7	13.5
0° - 40°	603.9	21.6	22.9
0° - 60°	1198.3	42.8	45.5
0° - 90°	2029.3	72.5	77.1
90° - 180°	602.8	21.5	22.9
0° - 180°	2632.0	94.0	100.0

		Coefficients of Utilization					
		20%		70%		50%	
pf		50%	30%	10%	50%	30%	10%
pc		100	100	100	95	95	86
pw		84	79	75	79	75	71
1		71	64	59	68	62	56
2		62	54	47	59	51	46
3		54	46	39	51	44	38
4		48	39	33	46	38	32
5		43	34	29	41	33	28
6		38	30	25	37	29	24
7		35	27	22	33	26	21
8		32	24	19	30	24	19
9		29	22	17	28	21	17
10		29	22	17	28	21	17

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0° - 30°	723.3	12.9	14.8
0° - 40°	1230.3	22.0	24.8
0° - 60°	2402.0	42.9	48.4
0° - 90°	3748.6	66.9	75.5
90° - 180°	1215.1	21.7	24.5
0° - 180°	4963.7	88.6	100.0

OCTRON® F028 800XP® SUPERSAVER® ECOLOGIC®3

EXtended Performance Fluorescent Lamps



SYLVANIA 28 Watt OCTRON F028 XP SUPERSAVER ECOLOGIC3 lamps operate on standard T8 instant start systems and provide 12.5% energy savings over standard 32 Watt OCTRON lamps. At \$0.10/kWh and 4000 hours of operation per year, the 12.5% savings translates to a savings of \$5.70 per fixture per year for a 4-lamp fixture with a normal ballast factor, instant start ballast. The 95% lumen maintenance of the OCTRON F028/800XP/SS/EC03 lamp assures that light levels are maintained while energy is saved. These lamps pass the Federal TCLP test, classifying them as non-hazardous waste in most states. Group re-lamp to realize the benefits of these OCTRON lamps in your facility.

Key Features & Benefits

- 28 Watt, 4-foot, SUPERSAVER energy saving, T8 lamp
- 12.5% energy savings compared to standard 32W T8 lamp
- A member of the SYLVANIA ECOLOGIC3 family of lamps
- Initial lumens – 2725 (850 is 2600)
- 95% lumen maintenance at 8000 hours
- 3000K, 3500K, 4100K & 5000K
- 85 CRI (850 is 80 CRI)
- Retrofit lamp for existing T8 instant start systems
- 24,000 hours average rated life @ 3 hrs per start
- 36,000 hours average rated life @ 12 hrs per start
- Approved on OSRAM SYLVANIA QUICK-TRONIC® PSX and PSN ballasts
- 36,000 hours average rated life @ 3 hrs per start
- 42,000 hours average rated life @ 12 hrs per start
- Minimum operating temperature: 60°F
- Not dimmable
- Not for use in air handling fixtures

SYLVANIA OCTRON T8 ECOLOGIC3 fluorescent lamps are designed to satisfy the Federal Toxicity Characteristic Leaching Procedure (TCLP¹) criteria for classification as non-hazardous waste in most states.²

ECOLOGIC3 represents a more comprehensive approach to sustainability encompassing high efficiency, long life and RoHS/TCLP compliance.

1. TCLP test results are based on NEMA LL Series standards and are available on request.
2. Lamp disposal regulations may vary; check your local & state regulations.



Product Offering

Lamp Type	Wattage	Color Temperature	CR
F028/830XP/SS/EC03	28	3000K	85
F028/835XP/SS/EC03	28	3500K	85
F028/841XP/SS/EC03	28	4100K	85
F028/850XP/SS/EC03	28	5000K	80

Application Information

Applications

Retail
Office
Schools
Hospitals
Industrial
Many applications with T8 instant start ballasts currently using 32W T8 lamps

Fixtures

Contact your local fixture agent for available fixtures.

Ballast Information

Contact your OSRAM SYLVANIA representative for a list of compatible electronic operating systems.



Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	Date

Ordering Information

Item Number	Ordering Abbreviation	Watts	Bulb	Base	Initial Lumens	Mean Lumens ¹	Avg. Rated Life (hrs.) ²	CCT	CRI
22177	F028/830XP/SS/EC03	28	T8	Medium bi-pin	2725	2590	24,000	3000K	85
22178	F028/835XP/SS/EC03	28	T8	Medium bi-pin	2725	2590	24,000	3500K	85
22179	F028/841XP/SS/EC03	28	T8	Medium bi-pin	2725	2590	24,000	4100K	85
22184	F028/850XP/SS/EC03	28	T8	Medium bi-pin	2600	2470	24,000	5000K	80

1. Measured @ 8000 hours, 94% of initial lumens at 9600 hours, and 93% of initial lumens at 14,400 hours.
 2. Based on 3 hours/start on instant start ballasts. At 12 hours/start, average rated life = 36,000 hours on instant start ballasts.

Ordering Guide

F0	28	/	8	35	XP	/	SS	/	EC03
Fluorescent OCTRON	Wattage = 28		CRI ≥ 80	Color Temperature 30 = 3000K 35 = 3500K 41 = 4100K 50 = 5000K	Extended Performance		SUPERSAVER		ECOLOGIC3

System Comparison

4-Lamp Systems: F028/800XP/SS/EC03 vs F032/700/ECO

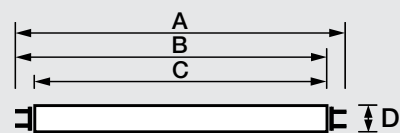
Lamp Type	Initial Lumens	Average Rated Life (hrs.)	Ballast	Ballast Factor	System Watts	System Lumens @ 8000 hrs.	Relative Lumens	Relative Lamp Life	% Energy Savings
F032/741/ECO	2800	15,000	4-lamp IS	.88	114	8870	100%	100%	—
F028/841XP/SS/EC03	2725	24,000	4-lamp IS	.88	100	9112	103%	160%	12.5
F032/741/ECO	2800	15,000	4-lamp IS-L	.77	98	7761	100%	100%	—
F028/841XP/SS/EC03	2725	24,000	4-lamp IS-L	.77	86	7973	103%	160%	12.5
F028/841XP/SS/EC03	2725	36,000	4-lamp PSX	.71	82/80 ¹	7352	95%	240%	17/19

1. Ballast is universal input, data is presented 120V/277V

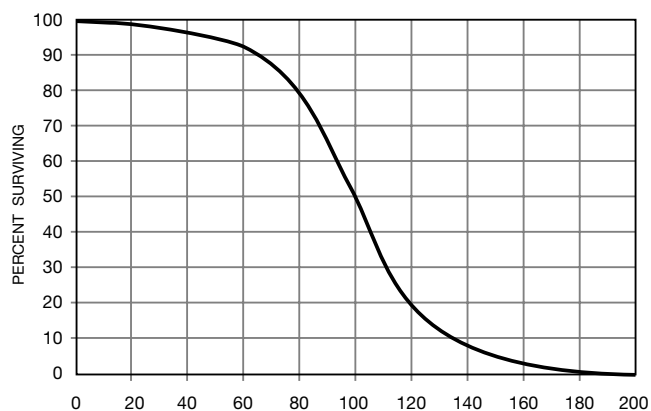
Technical Information

Dimensions

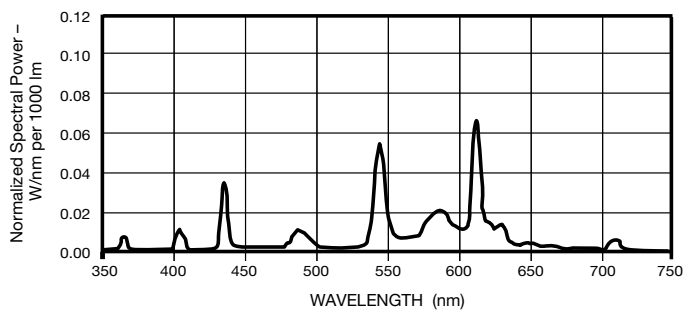
Lamp Type	(A) Max. Overall Length (in.)	(B) Base Face to Opposite Pin (in.)	(C) Max. Base Face to Base Face (in.)	(D) Max. Outside Diameter (in.)
F028	47.78"	Min. 47.41" Max. 47.50"	47.22"	1.1"



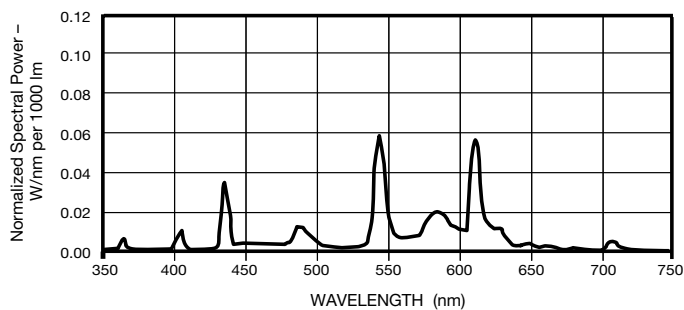
Typical Fluorescent Lamp Mortality



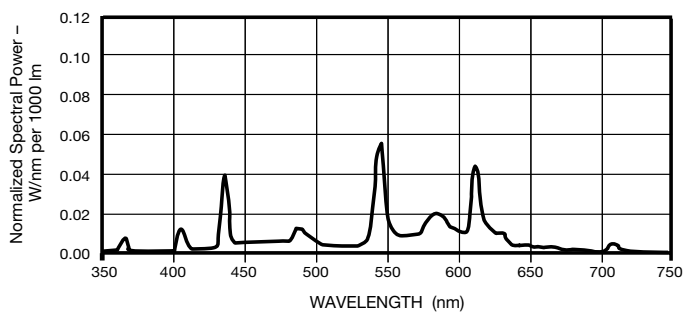
OCTRON 830



OCTRON 835



OCTRON 841



Application Information (continued)

Application Notes

1. Recommended to be used on T8 F32 Instant or Programmed Start ballasts with minimum open circuit voltage of 550V RMS at the lamp.
 - a. Electronically ballasted fixture configurations which operate lamps remotely, such as Master/Satellite applications, can cause reduction of lamp open circuit voltage, in the remote fixture, below the minimum required for reliable lamp starting. For more information, please call 1-800-LIGHTBULB and ask for Ballast Technical Assistance or call your fixture manufacturer.
 - b. Not recommended to be used: (1) in remotely ballasted fixtures with lamp open circuit voltages below 550V, (2) with Rapid Start ballasts unless the lamp open circuit voltage is greater than 570V, (3) at lamp ambient temperatures below 60°F or in drafty locations, (4) in air handling fixtures, (5) on low power factor ballasts, (6) dimming ballasts, or (7) inverter operated emergency lighting systems unless any of the above equipment is specifically listed for 28 watt lamps. Any of the above situations could result in lamp starting and stabilization problems or system compatibility issues.
2. If an operating lamp is exposed to drafts and/or the ambient temperature falls below 60°F, striation (a rhythmic pulsing pattern of light running down the tube) and/or reduction in lamp brightness may occur. While visually disconcerting, neither behavior is damaging to the lamp and removing the cause (draft or temperature) will return the lamp to normal operation.
3. Fixture must conform to ANSI C78.81 – 2005 requirements for luminaire design.

Sample Specification

Lamp(s) shall be OCTRON® F028 XP® SUPER-SAVER® ECOLOGIC®3 4-foot lamp(s) having medium bi-pin bases. Lamp(s) shall be designed to pass the Federal TCLP test in force at the time of manufacture. Lamp(s) shall have an average rated life of 24,000 hours at 3 hours per start when operated on T8 instant start ballasts, 2725 initial lumens (2600 for 5000K), 95% lumen maintenance at 8000 hours, a correlated color temperature of (3000K, 3500K, 4100K or 5000K) and a CRI of (80, 85). The OCTRON SUPERSAVER ECOLOGIC3 lamp(s) shall be operated on QUICKTRONIC electronic, high frequency ballasts with complete system warranty from the manufacturer covering lamps and ballast.

Warranty

QUICK 60+® warranty for OSRAM SYLVANIA lamp and ballast combination

Limited 36 month lamp warranty and a five year ballast warranty is possible if both lamps and ballast are provided by OSRAM SYLVANIA. See the QUICK 60+ warranty for details and restrictions.

OSRAM SYLVANIA
National Customer
Service and Sales Center
18725 N. Union Street
Westfield, IN 46074 USA

Industrial Commercial
Phone: 1-800-255-5042
Fax: 1-800-255-5043

National Accounts
Phone: 1-800-562-4671
Fax: 1-800-562-4674

OEM/Special Markets
Phone: 1-800-762-7191
Fax: 1-800-762-7192

Display/Optic
Phone: 1-888-677-2627
Fax: 1-800-762-7192

In Canada
OSRAM SYLVANIA LTD
Headquarters
2001 Drew Road
Mississauga, ON L5S 1S4

Industrial Commercial
Phone: 1-800-263-2852
Fax: 1-800-667-6772

Special Markets
Phone: 1-800-265-2852
Fax: 1-800-667-6772

Visit our website: www.sylvania.com

Mercantile Customer Project Commitment Agreement
Cash Rebate Option

THIS MERCANTILE CUSTOMER PROJECT COMMITMENT AGREEMENT ("Agreement") is made and entered into by and between The Cleveland Electric Illuminating Company, its successors and assigns (hereinafter called the "Company") and Family Dollar, Inc., Taxpayer ID No. 56-2056614 its permitted successors and assigns (hereinafter called the "Customer") (collectively the "Parties" or individually the "Party") and is effective on the date last executed by the Parties as indicated below.

WITNESSETH

WHEREAS, the Company is an electric distribution utility and electric light company, as both of these terms are defined in R.C. § 4928.01(A); and

WHEREAS, Customer is a mercantile customer, as that term is defined in R.C. § 4928.01(A)(19), doing business within the Company's certified service territory; and

WHEREAS, R.C. § 4928.66 (the "Statute") requires the Company to meet certain energy efficiency and peak demand reduction ("EE&PDR") benchmarks; and

WHEREAS, when complying with certain EE&PDR benchmarks the Company may include the effects of mercantile customer-sited EE&PDR projects; and

WHEREAS, Customer has certain customer-sited demand reduction, demand response, or energy efficiency project(s) as set forth in attached Exhibit 1 (the "Customer Energy Project(s)") that it desires to commit to the Company for integration into the Company's Energy Efficiency & Peak Demand Reduction Program Portfolio Plan ("Company Plan") that the Company will implement in order to comply with the Statute; and

WHEREAS, the Customer, pursuant to the Public Utilities Commission of Ohio's ("Commission") September 15, 2010 Order in Case No. 10-834-EL-EEC, desires to pursue a cash rebate of some of the costs pertaining to its Customer Energy Project(s) ("Cash Rebate") and is committing the Customer Energy Project(s) as a result of such incentive.

WHEREAS, Customer's decision to commit its Customer Energy Project(s) to the Company for inclusion in the Company Plan has been reasonably encouraged by the possibility of a Cash Rebate.

WHEREAS, in consideration of, and upon receipt of, said cash rebate, Customer will commit the Customer Energy Project(s) to the Company and will comply with all other terms and conditions set forth herein.

NOW THEREFORE, in consideration of the mutual promises set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties, intending to be legally bound, do hereby agree as follows:

1. **Customer Energy Projects.** Customer hereby commits to the Company and Company accepts for integration into the Company Plan the Customer Energy Project(s) set forth on attached Exhibit 1. Said commitment shall be for the life of the Customer Energy Project(s). Company will incorporate said project(s) into the Company Plan to the extent that such projects qualify. In so committing, and as evidenced by the affidavit attached hereto as Exhibit A, Customer acknowledges that the information provided to the Company about the Customer Energy Project(s) is true and accurate to the best of its knowledge.

- a. By committing the Customer Energy Project(s) to the Company, Customer acknowledges and agrees that the Company shall control the use of the kWh and kW reductions resulting from said projects for purposes of complying with the Statute. By committing the Customer Energy Project(s), Customer has the ability to either:
- i. Take ownership of the Energy Efficiency resource credits resulting from their Customer Energy Project(s) and may be able to bid - or sell - the Energy Efficiency resource credits into the market operated by the grid operator, PJM Interconnection, Inc. (PJM), provided several prerequisites are met; or
 - ii. Allow the Company to take ownership of the Energy Efficiency resource credits associated with their Customer Energy Project(s). The Company shall, at its sole discretion, aggregate said capacity into the PJM market through an auction. Any proceeds from any such bids accepted by PJM will be used to offset the costs charged to the Customer and other of the Company's customers for compliance with state mandated energy efficiency and/or peak demand requirements.

Please indicate your preference as to the treatment of your Energy Efficiency resource credits:

- ☒ Customer would like to retain ownership of its Energy Efficiency resource credits.
- ☐ Customer assigns ownership of its Energy Efficiency resource credits to Company for purposes of bidding these credits into PJM.

- b. The Company acknowledges that some of Customer's Energy Projects contemplated in this paragraph may have been performed under certain other federal and/or state programs in which certain parameters are required to be maintained in order to retain preferential financing or other government benefits (individually and collectively, as appropriate, "Benefits"). In the event that the use of any such project by the Company in any way affects such Benefits, and upon written request from the Customer, Company will release said Customer's Energy Project(s) to the extent necessary for Customer to meet the prerequisites for such Benefits. Customer acknowledges that such release (i) may affect Customer's cash rebate discussed in Article 3 below; and (ii) will not affect any of Customer's other requirements or obligations.
- c. Any future Customer Energy Project(s) committed by Customer shall be subject to a separate application and, upon approval by the Commission, said projects shall become part of this Agreement.
- d. Customer will provide Company or Company's agent(s) with reasonable assistance in the preparation of the Commission's standard joint application for approval of this Agreement ("Joint Application") that will be filed with the Commission, with such Joint Application being consistent with then current Commission requirements.
- e. Upon written request and reasonable advance notice, Customer will grant employees or authorized agents of either the Company or the Commission reasonable, pre-arranged access to the Customer Energy Project(s) for purposes of measuring and verifying energy savings and/or peak demand reductions resulting from the Customer Energy Project(s). It is expressly agreed that consultants of either the Company or the Commission are their respective authorized agents.
2. **Joint Application to the Commission.** The Parties will submit the Joint Application using the Commission's standard "Application to Commit Energy Efficiency/Peak Demand Reduction Programs" ("Joint Application") in which they will seek the Commission's approval of (i) this

Agreement: (ii) the commitment of the Customer Energy Project(s) for inclusion in the Company Plan; and (iii) the Customer's Cash Rebate.

The Joint Application shall include all information as set forth in the Commission's standard form which, includes without limitation:

- i. A narrative description of the Customer Energy Project(s), including but not limited to, make, model and year of any installed and/or replaced equipment;
 - ii. A copy of this Agreement; and
 - iii. A description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results.
3. **Customer Cash Rebate.** Upon Commission approval of the Joint Application, Customer shall provide Company with a W-9 tax form, which shall at a minimum include Customer's tax identification number. Within the greater of 90 days of the Commission's approval of the Joint Application or the completion of the Customer Energy Project, the Company will issue to the Customer the Cash Rebate in the amount set forth in the Commission's Finding and Order approving the Joint Application.
 - a. Customer acknowledges: i) that the Company will cap the Cash Rebate at the lesser of 50% of Customer Energy Project(s) costs or \$250,000; ii) the maximum rebate that the Customer may receive per year is \$500,000 per Taxpayer Identification Number per utility service territory; and iii) if the Customer Energy Project qualifies for a rebate program approved by the Commission and offered by the Company, Customer may still elect to file such project under the Company's mercantile customer self direct program, however the Cash Rebate that will be paid shall be discounted by 25%; and
 - b. Customer acknowledges that breaches of this Agreement, include, but are not limited to:
 - i. Customer's failure to comply with the terms and conditions set forth in the Agreement, or its equivalent, within a reasonable period of time after receipt of written notice of such non-compliance;
 - ii. Customer knowingly falsifying any documents provided to the Company or the Commission in connection with this Agreement or the Joint Application.
 - c. In the event of a breach of this Agreement by the Customer, Customer agrees and acknowledges that it will repay to the Company, within 90 days of receipt of written notice of said breach, the full amount of the Cash Rebate paid under this Agreement. This remedy is in addition to any and all other remedies available to the Company by law or equity.
4. **Termination of Agreement.** This Agreement shall automatically terminate:
 - a. If the Commission fails to approve the Joint Agreement;
 - b. Upon order of the Commission; or
 - c. At the end of the life of the last Customer Energy Project subject to this Agreement.

Customer shall also have an option to terminate this Agreement should the Commission not approve the Customer's Cash Rebate, provided that Customer provides the Company with written

notice of such termination within ten days of either the Commission issuing a final appealable order or the Ohio Supreme Court issuing its opinion should the matter be appealed.

5. **Confidentiality.** Each Party shall hold in confidence and not release or disclose to any person any document or information furnished by the other Party in connection with this Agreement that is designated as confidential and proprietary ("Confidential Information"), unless: (i) compelled to disclose such document or information by judicial, regulatory or administrative process or other provisions of law; (ii) such document or information is generally available to the public; or (iii) such document or information was available to the receiving Party on a non-confidential basis at the time of disclosure.
 - a. Notwithstanding the above, a Party may disclose to its employees, directors, attorneys, consultants and agents all documents and information furnished by the other Party in connection with this Agreement, provided that such employees, directors, attorneys, consultants and agents have been advised of the confidential nature of this information and through such disclosure are deemed to be bound by the terms set forth herein.
 - b. A Party receiving such Confidential Information shall protect it with the same standard of care as its own confidential or proprietary information.
 - c. A Party receiving notice or otherwise concluding that Confidential Information furnished by the other Party in connection with this Agreement is being sought under any provision of law, to the extent it is permitted to do so under any applicable law, shall endeavor to: (i) promptly notify the other Party; and (ii) use reasonable efforts in cooperation with the other Party to seek confidential treatment of such Confidential Information, including without limitation, the filing of such information under a valid protective order.
 - d. By executing this Agreement, Customer hereby acknowledges and agrees that Company may disclose to the Commission or its Staff any and all Customer information, including Confidential Information, related to a Customer Energy Project, provided that Company uses reasonable efforts to seek confidential treatment of the same.
6. **Taxes.** Customer shall be responsible for all tax consequences (if any) arising from the payment of the Cash Rebate.
7. **Notices.** Unless otherwise stated herein, all notices, demands or requests required or permitted under this Agreement must be in writing and must be delivered or sent by overnight express mail, courier service, electronic mail or facsimile transmission addressed as follows:

If to the Company:

FirstEnergy Service Company
76 South Main Street
Akron, OH 44308
Attn: Victoria Nofziger
Telephone: 330-384-4684
Fax: 330-761-4281
Email: ymnofziger@firstenergycorp.com

If to the Customer:

Family Dollar, Inc.
10301 Monroe Rd.
Matthews, NC 28105
Attn: Johnathan Thigpen
Telephone: 704-708-2996
Fax:

Email: jthigpen@familydollar.com

or to such other person at such other address as a Party may designate by like notice to the other Party. Notice received after the close of the business day will be deemed received on the next business day; provided that notice by facsimile transmission will be deemed to have been received by the recipient if the recipient confirms receipt telephonically or in writing.

8. **Authority to Act.** The Parties represent and warrant that they are represented by counsel in connection with this Agreement, have been fully advised in connection with the execution thereof, have taken all legal and corporate steps necessary to enter into this Agreement, and that the undersigned has the authority to enter into this Agreement, to bind the Parties to all provisions herein and to take the actions required to be performed in fulfillment of the undertakings contained herein.
9. **Non-Waiver.** The delay or failure of either party to assert or enforce in any instance strict performance of any of the terms of this Agreement or to exercise any rights hereunder conferred, shall not be construed as a waiver or relinquishment to any extent of its rights to assert or rely upon such terms or rights at any later time or on any future occasion.
10. **Entire Agreement.** This Agreement, along with related exhibits, and the Company's Rider DSE, or its equivalent, as amended from time to time by the Commission, contains the Parties' entire understanding with respect to the matters addressed herein and there are no verbal or collateral representations, undertakings, or agreements not expressly set forth herein. No change in, addition to, or waiver of the terms of this Agreement shall be binding upon any of the Parties unless the same is set forth in writing and signed by an authorized representative of each of the Parties. In the event of any conflict between Rider DSE or its equivalent and this document, the latter shall prevail.
11. **Assignment.** Customer may not assign any of its rights or obligations under this Agreement without obtaining the prior written consent of the Company, which consent will not be unreasonably withheld. No assignment of this Agreement will relieve the assigning Party of any of its obligations under this Agreement until such obligations have been assumed by the assignee and all necessary consents have been obtained.
12. **Severability.** If any portion of this Agreement is held invalid, the Parties agree that such invalidity shall not affect the validity of the remaining portions of this Agreement, and the Parties further agree to substitute for the invalid portion a valid provision that most closely approximates the economic effect and intent of the invalid provision.
13. **Governing Law.** This Agreement shall be governed by the laws and regulations of the State of Ohio, without regard to its conflict of law provisions.
14. **Execution and Counterparts.** This Agreement may be executed in multiple counterparts, which taken together shall constitute an original without the necessity of all parties signing the same page or the same documents, and may be executed by signatures to electronically or telephonically transmitted counterparts in lieu of original printed or photocopied documents. Signatures transmitted by facsimile shall be considered original signatures.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized officers or representatives as of the day and year set forth below.

The Cleveland Electric Illuminating Company_
(Company)

By:

John C. Largie

Title: V.P. Of Energy Efficiency

Date:

3-18-14

By:

(Customer) E. Smith W. Thayer

Title:

Energy Manager

Date:

03/10/2014



STATE OF OHIO

SS:

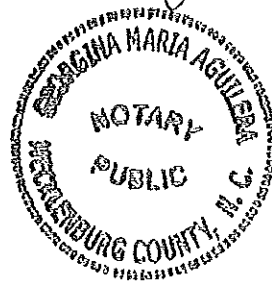
1. I am the Energy Manager of Family Dollar, Inc. ("Customer") As part of my duties, I oversee energy related matters for the Customer.
2. The Customer has agreed to commit certain energy efficiency projects to The Cleveland Electric Illuminating Company ("Company"), which are the subject of the agreement to which this affidavit is attached ("Project(s)").
3. In exchange for making such a commitment, the Company has agreed to provide Customer with Cash ("Incentive"). This Incentive was a critical factor in the Customer's decision to go forward with the Project(s) and to commit the Project(s) to the Company.
4. All information related to said Project(s) that has been submitted to the Company is true and accurate to the best of my knowledge.

John W. H.

Sworn to before me and subscribed in my presence this 20th day of Feb, 2024.

Notary

My Commission Expires: July 7, 2015



This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

4/28/2014 11:47:26 AM

in

Case No(s). 14-0243-EL-EEC

Summary: Application to Commit Energy Efficiency/Peak Demand Reduction Programs of The Cleveland Electric Illuminating Company and Family Dollar, Inc. electronically filed by Ms. Jennifer M. Sybyl on behalf of The Cleveland Electric Illuminating Company and Family Dollar, Inc.